**Annex: Summary assessment of options**

**Overview**

For this consultation, the IPO carried out initial analysis of the measures consulted on, where specific proposals have been put forward. These are the proposals relating to text and data mining (TDM) and computer-generated works (CGW). The analysis aims to inform policy making, based on information currently available, and will be developed in light of further evidence received through consultation.

This annex summarises the analysis, which adds to the information provided in the consultation document. It aims to provide context on the range and scale of impacts the government is considering when developing these policies, giving respondents the opportunity to provide further evidence.

For each measure we have set out analysis of the short-list policy options, and carried out a theory of change and regulatory scorecard in line with the Better Regulation Framework:

Theory of change: The theory of change shows the logic model for how the preferred and/or short-list policy options are expected to meet the desired objectives. This sets out the issues, activities, outputs, outcomes and impacts associated with the proposed interventions. It also sets out the assumptions we have made in linking these, demonstrating the uncertainty in how the impacts will be realised. These theories of change show a simple mapping of the key effects, which are discussed in more detail in the regulatory scorecards beneath.

The Regulatory scorecard sets out the following impacts:

* **A(1)** Overall and stakeholder impacts, which summarises the overall impact on the economy and wider society, referred to as “total welfare”,
* **A(2)** Expected impacts on businesses,
* **A(3)** Expected impacts on households.
* **B** Impacts on wider government priorities

Under each heading within the regulatory scorecard, the type of impact is given a ‘directional rating’. This will either be positive, negative, neutral or uncertain based on what is assessed as the likely direction of impact on stakeholders and government priorities at this stage.

For Text and Data Mining, the regulatory scorecard assesses the preferred Option (Option 3: A data mining exception which allows right holders to reserve their rights, underpinned by supporting measures on transparency). This annex does not include a regulatory scorecard for Computer Generated Works at this stage.

**Text and Data Mining – Short list options**

We have assessed the short-list options against the following objectives:

* **Control:** Right holders should have control over the use of their content by AI models. The intended effects are that right holders are more easily able to prevent use of their content for AI training, to license their content for AI training, and to enforce their choices through legal and technological means. Therefore, if this objective is achieved, we would expect right holders to report an improved ability to control access to and use of their works with AI, and to see an increase in licensing incidence and value.
* **Access:** AI developers should be able to access and use large volumes of online content to train their models easily, lawfully and without infringing copyright. The intended effects are that AI developers are able to acquire sufficiently large, varied and high-quality datasets to train their models (typically millions or billions of data points), without unreasonable administrative and technological costs. Therefore, if this objective is achieved, we would expect AI developers, including UK-based SMEs, to report that they are able to acquire sufficient training content without unreasonable cost, and to see training taking place in the UK instead of being displaced to other jurisdictions.
* **Transparency:** The copyright framework should be clear and make sense to its users, with greater transparency. The intended effects are that the copyright rules on permitted and restricted use of content are clear to AI developers and to content providers, and that AI developers are sufficiently open about their training sources to enable scrutiny and ensure legal compliance. Therefore, if this objective is achieved, we would expect to see AI developers and content creators – including SMEs with fewer legal resources – to report that they understand the copyright rules in this area; and we would expect right holders to report greater confidence that they know whether or not their content is being used and can pursue enforcement action if needed.

**Option 0: Do nothing, no legal change.** The current TDM exception, applicable to non-commercial scientific research for copyright works only, would remain, alongside other existing exceptions such as for temporary copies. Unless an exception applies, permission would usually be needed to copy protected works for the purpose of AI training in the UK.

The interpretation of existing copyright law and its application to AI training is disputed. Disputed aspects include the scope/application of existing copyright exceptions and the status of models trained outside the UK’s jurisdiction. In addition, a lack of transparency over which sources are used to train AI models means rights are difficult to enforce.

This option would mean the current lack of legal clarity remains for both rights holders and AI developers. It would mean rights holders continue to find it difficult to seek remuneration and understand how their content is being used in model training. AI developers, particularly small firms and new entrants, will continue to face legal risks, and may choose to train models overseas. Firms will continue to be hesitant in deploying AI because of the legal risks.

In the long term, court rulings could affect the control and access objectives, by clarifying the extent to which right holders can prevent use of their works in the UK. But clarification through the courts is likely to take several years, if it happens at all. Moreover, given the lack of express intent to balance objectives within the current legal framework, it is likely that any legal clarification supports one objective at the expense of the other. The transparency objective is unlikely to be met through court clarification, as no specific transparency provisions exist in law.

Overall, none of the above objectives of control, access, and transparency is likely to be met. Because of this, the Government has rejected this option, but will seek views on it during consultation.

**Option 1: Strengthen copyright requiring licensing in all cases.** This option would provide clarity that AI developers could only train on copyright works if they have an express licence to do so. It would make clear that licences are required to make copies for training purposes. This clarity could be provided by, for example, modifying certain existing exceptions and clarifying the status of models trained outside the UK. It could be backed by transparency provisions and easier routes to enforce copyright. It would provide a clear route to remuneration for creators.

However, this option would make it harder for AI developers to access content in the UK compared to other jurisdictions as they would require permission from multiple sources which may be difficult to obtain. Smaller firms in particular may find it difficult to comply with the law and manage the risk of infringement, the costs of which are likely to be a disincentive to innovation.

This is likely to make the UK a less attractive location for AI development, reducing investment in the sector. It is also likely to make the UK less competitive compared to other jurisdictions – such as the EU and US – which do not have such restrictive laws.

Models trained in most other jurisdictions would fall short of UK standards. As a result, some AI services may not be provided in the UK, to avoid the risk of litigation. This would significantly limit innovation and consumer choice, as well as reducing opportunities for right holders to license AI services.

This option would help to give right holders’ greater control over their works. It could be implemented alongside transparency obligations, thus also meeting our transparency objective. However, it is unlikely to meet our objective of easy access to material by AI developers or to deliver the outcomes of increased investment in, development, and use of AI in the UK. As such, this is not the preferred option but will be consulted on.

**Option 2: A broad data mining exception.** This would allow data mining on copyright works – including for AI training – without right holders’ permission. The exception would be subject to few or no restrictions.

A number of countries provide exceptions that either allow data mining expressly (e.g. Singapore) or where this meets a “fair use” standard (e.g. the US, subject to ongoing litigation). In 2022 the previous Government proposed a broad exception, with limited restrictions, but did not implement it.

A broad exception could improve AI developers’ access to training material, and investment in the UK. However, it would not meet the needs of right holders, as they would not be able to control or seek remuneration for use of their works, or have greater transparency over content used. In the case of fair use, it is likely that certain uses would ultimately be ruled as permitted and others as requiring licences, depending on the specific facts. However, it would take considerable time and expensive litigation to determine which specific uses are fair, and complete clarity will never be possible. Furthermore, a fair use approach favours large firms which are able to afford litigation.

Therefore, whilst this option should meet the access objective, it is unlikely to meet the control and transparency objectives.

As such, this is not the preferred option but will be consulted on.

**Option 3:** **A data mining exception with a rights reservation mechanism**. This would permit TDM for any use by anyone, but rights holders would be able to opt-out individual works, sets of works or all of their works that they do not want them to be mined for commercial purposes. Where such works are made available online they would need to be accompanied by a machine readable method to reserve rights, so that systems data mining significant numbers of works can easily identify works that can be lawfully mined. This option appears to have the potential to meet our objectives of control, access, and transparency.

**Because of this, exploring a data mining exception with ability to reserve rights is our preferred option for this consultation.** This option is analysed in more detail under the Theory of Change and Regulatory Scorecard below.

**Small and micro business assessment**

**Option 3 (preferred option)**

Small and micro businesses are an important source of dynamic innovation and creativity within the UK economy and contribute to growth and trade. We consider the impact on Small and Micro, as well as Medium, businesses across both the creative industries and sectors who benefit most from investing in and using AI. Firstly, the Government’s preferred approach (Option 3) will benefit AI sectors, the creative industries and rights holders of all sizes by providing legal certainty. Small, Micro and Medium sized businesses in particular will likely not have the resources to initiate legal cases, so legal certainty may have a greater positive impact on these businesses. Some respondents to the 2021 consultation[[1]](#footnote-2) suggested legal uncertainty could arise from creating a new exception (Option 2), which could be disproportionately burdensome on SMEs. The preferred option would need to ensure that it is not blurring the line between permitted and restricted use. Based on our overall assessment at this stage, the preferred approach would have a positive impact on the legal clarity for medium, small and micro businesses. This should reduce the barriers for smaller firms to enforce their rights and make the landscape more competitive.

Of firms within the creative industries, 93% are micro (0 to 9 employees), 5% are small (10 to 49) and 1% are medium (50 to 249) businesses.[[2]](#footnote-3) For rights holders and the creative industries to be able to reserve the rights in their works being ingested by generative AI models, we will need to ensure the rights reservation process is sufficiently accessible, straightforward and effective to ensure additional costs are not placed on businesses. Some stakeholders responding to the 2021 consultation indicated that rights reservation could be significantly burdensome for rightsholders, particularly for smaller businesses. Since then, more AI developers have begun to implement systems to respect the reservation of rights, and a market in such technology is growing,[[3]](#footnote-4) though there is a lack of standardisation. It is not clear what the relative cost for smaller rights holders would be and, following consultation on this expected impact, it will be important for the final-stage impact assessment (IA) and subsequent implementation to consider the capabilities and resources of smaller businesses. Subject to rights reservation being accessible for small and micro rights holders to comply with, any disproportionate impact on these businesses should be minimised. However, this does represent a direct set-up cost for medium, small and micro businesses that want to reserve their rights. At this stage, an exemption from the proposals for small and micro businesses is not part of the preferred option. The rights reservation process and other technical details will be further explored in this consultation.

Of firms identified as providing AI infrastructures, products and services, approximately 60% were micro, 28% were small and 8% were medium businesses.[[4]](#footnote-5) There will also be direct set-up costs for AI developers to comply with the rights reservation, which may be harder for smaller businesses. The condition for a rights reservation mechanism to be provided in machine readable format means the disruption to any SME AI developers should be minimised. Simplifying the licensing environment may be of particular benefit to those who are smaller mainly because they have significantly fewer resources available to cope with regulatory change and ongoing compliance costs. The consultation will look to understand any challenges with implementing machine readable formats, and we will analyse how this differs for SMEs. In addition, the preferred option may introduce transparency measures that could require AI firms to disclose the use of specific works, datasets and/or details of web crawlers. Whilst the details of this are not developed, it would add administrative costs to AI firms, which could increase regulatory barriers for new and smaller firms. Views on a proportionate approach to disclosing this information are being consulted on.

Larger businesses with greater purchasing power are more likely to benefit from additional licensing of content, whereas certain smaller businesses may only benefit from content that becomes free-to-access compared to the baseline.

Small and micro businesses are less likely to be users of AI. 21% of micro and 23% of small businesses indicated they were using AI for at least one business function surveyed. This is followed by medium (33-38%) and large (53%) businesses in turn.[[5]](#footnote-6) Increased investment in AI tools and legal certainty to operate could have knock-on effects on increased adoption for smaller businesses. However, this impact is highly uncertain.

Assessment of other shortlisted options:

For option 0, small and micro business rights holders would continue to face challenges for the remuneration for the use of their works. AI developers (particularly small and micro businesses and new entrants) would continue to face legal uncertainty.

For option 1, strengthening the requirement for licences would be beneficial for small and micro business rights holders who are concerned that their works are being ingested by generative AI models. This option should make it easier for small and micro rightsholders to license their content and seek remuneration for models that are already being trained in the UK. Compared to the status quo, this would also reduce legal uncertainty which, as described above, should tend to favour smaller businesses with lower resources. However, this could limit the access of text and data to AI developers compared to the preferred option. It would not enable free access to any data by default, meaning there could be an inability to access certain content where rights holders are not responsive, or increase transaction costs. Additional barriers would have a particular impact on new entrants and small and micro businesses. This means there is a significant risk that option 1 could be damaging for competition in the AI sector, compared to other countries.

For option 2, a broad data mining exception would provide positive impacts for AI firms and in particular small, micro and new entrant firms as data could be mined without permission and at a lower cost. This would lower both regulatory and financial barriers to entry for new firms in the AI sector. However, for rights holders of all business sizes, they would not be able to seek renumeration for the use of their works. This lack of income stream could have a disproportionate impact on small and micro business rights holders. As stated above, some stakeholders have also voiced concern that if a new broad exception is framed as “fair use”, this could increase legal uncertainty as there would still be questions surrounding what is permitted. If this option failed to alleviate this legal uncertainty, it would have disproportionate negative impacts on medium, small and micro businesses from all sectors concerned.

**Text and Data Mining – Theory of Change**

The theory of change diagram (Figure 1) maps out the following steps in the logic model for the preferred option (option 3):

**Issues:** legal uncertainty exists around the basis for TDM under copyright law; creators have limited control over the use of their works and are not fully compensated for training of AI models.

**Activities:** create a text and data mining exception, with rights reservation and transparency measures.

**Outputs:** better access to content and a clearer legal basis for training AI models, rights being more easily enforced, increases in licensing of content and lower transaction costs, with some new set-up costs.

Assumptions linking the issues to outputs: current issues could not be resolved through guidance or voluntary code; changes would simplify legal uncertainty; the exception with rights reservation would increase rather than decrease data access.

**Outcomes:** rights holders have better control of their content and licensing; greater access to material, incentivising investment in AI; and the market operating with greater transparency.

**Impacts:** spillover innovation and productivity benefits; growth of AI & creative industries.

Our assumptions linking the outputs to impacts are that the UK AI sector will become more competitive internationally from the exception; that licensing revenue for right holders won’t fall; that the rights reservation won’t be overly burdensome; and that there will be limited employment & environmental impacts.

**Figure 1: Text and Data Mining Theory of Change**



**Text and Data Mining – Regulatory Scorecard**

**Part A: Overall and stakeholder impacts**

**A(1): Overall impacts on total welfare**

Description of overall expected impact – Directional Rating *Positive* (Based on all impacts including non-monetised)

The overall impact of the preferred option is assessed as positive. This is because the option will provide legal certainty for AI firms, the creative industries, and rights holders. This option would meet the Government’s objective of achieving balance for both the UK’s creative and AI industries, when combined with transparency measures that can facilitate licensing agreements. This will provide both access to data for AI developers whilst providing control for the use of rights holders’ works.

Some impacts on households are discussed relating to wider and knock-on effects of greater investment and adoption of AI on society. As the changes of this policy are likely to have a marginal impact and there are many confounding factors to consider, the overall impact on households is uncertain. As the direct business impacts are more clearly attributable to the intervention, the overall impact on welfare is still assessed as positive.

Monetised impacts – Directional Rating *Uncertain* (Based on likely £NPSV)

The full extent of identified impacts is discussed below but we are not able to monetise the impacts at this stage. Almost no quantitative evidence was provided during the 2021 consultation on AI and Intellectual Property, including Text and Data Mining. However, both generative AI technology and the AI licensing market have developed rapidly since that consultation. We will have a better sense of the expected costs and benefits following consultation and once the implementation is further developed.

For example, some potential costs may exist for both rights holders and AI developers as rights reservation standards and tools are developed and deployed. However, until these standards, tools and other elements needed for the reservation of rights to be operable are further developed, and considered alongside the impacts of businesses already having to implement comparable measures to comply with EU law, estimating this cost and potential impact at this time the exact net impact remains uncertain.

Non-monetised impacts – Directional Rating *Positive*

We have identified a wide range of impacts on affected stakeholders and have indicated whether this is likely to be direct (immediate and/or unavoidable) or indirect (second-round and/or voluntary). The impact on business is expanded in more detail in **A(2) Expected impacts on business** and the impact on individuals is described more in**A(3) Expected impacts on households.**

**Costs**

The following costs could fall on rights holders:

* Familiarisation costs to read and understand the legislation and disseminate the information (direct),
* Set-up costs, including developing rights reservation standards (direct) and implementing the reservation of rights in machine reading format (direct),
* Ongoing compliance cost, including maintaining and/or monitoring rights reservation (indirect) and changes to licensing (indirect),
* Revenue cost, including the risk of a fall in revenue for commercial uses of TDM (e.g. for firms which do not reserve their rights, or do so without setting up a licensing system) (direct).

The following costs could fall on AI developers:

* Familiarisation costs (direct),
* Set-up costs, including developing rights reservation standards (direct) and ensuring their systems meets machine readable format (direct),
* Ongoing compliance costs – including maintaining ability for tools to read the reservation of rights (direct),
* Transparency measures – including technical cost of identifying, and administrative cost of disclosing information used in TDM activities (direct),
* Potential increased licensing costs (indirect),
* Potential unintended consequence of a fall in data access if rights holders reserve their rights without providing licensing. (indirect).

The following costs could fall on AI users and the public:

* Potential increased cost of AI tools through passing on of licensing costs (direct),
* Negative externalities (e.g. negative employment impacts, environmental harm) (indirect).

**Benefits**

Right holders could experience the following benefits:

* A potential increase in revenue for rights holders, who previously were not licensing content for commercial uses of TDM, through reserving their rights (indirect),
* Lower legal costs if simplified legal basis could lead to fewer litigation cases (indirect),
* A welfare benefit to rights holders who are able to exercise control over the use of their creations (indirect).

 AI developers could experience the following benefits:

* Better quality models leading to higher revenue and increased investment in AI sectors (indirect),
* The preferred option is interoperable with the EU regime and could provide less burden for AI businesses that also operate in the EU markets, in particular international firms (indirect),
* Legal certainty to operate and potential lower legal costs through litigation cases (indirect).

 AI users and public could experience the following benefits:

* Potential net decrease in cost of AI to users, from lower barriers to entry for AI firms leading to lower prices (indirect),
* Spillover benefits to society from greater development of AI tools and potentially increased AI adoption (indirect).

The legal certainty the preferred option will bring, and the potential to incentivise more transactions, is expected to outweigh the cost to business, as discussed under **A(2) Expected impact on business**. Therefore, it is likely there will be a net benefit to businesses. Whilst the impact on households is assessed as uncertain, these are indirect effects which should be less significant than the direct business impacts. Overall, we have qualitatively assessed the non-monetised impacts as likely to be positive.

There is also benefit in having an approach which is interoperable with EU measures – whereby many of the impacts listed above will already be factored in by businesses who comply with EU laws.

Any significant or adverse distributional impacts? – Directional Rating *Neutral*

No.

We have not identified any significant or adverse distributional impacts not identified outside of those for businesses and households.

**A(2): Expected impacts on businesses**

Description of overall business impact – Directional Rating *Positive*

​​The Government’s preferred policy option expressly seeks to balance the objectives of access to works by AI developers with control over works by right holders. It means that AI developers are able to train on large volumes of web-based material without risk of infringement, but right holders are also able to control their works and seek payment for their use. This option has the potential to support AI innovation whilst maintaining and potentially promoting the use of licenses for right holders.

​For researchers and SMEs, the clarity this option provides could provide a reduction in barriers for text and data mining in the UK.

​However, some rights holders may view the preferred policy option as having negative impacts on their business including the burden of having to reserve their rights in practice. Many have suggested robust safeguards and transparency including clear and operable rights reservation standards to address these concerns and these will be subject to consultation. There could be set-up costs associated with the relevant mechanism for both right holders and AI firms.

​On balance, the Government expects the preferred option will have a net positive impact on businesses, compared to the counterfactual. It will do so by supporting both investment in AI as well as remuneration for right holders. Other options may provide more benefits to one group, but at the expense of the other. The relative benefits of the preferred option will depend on the extent to which it maximises data access, through licensing and wider use, whilst ensuring the reservation of rights minimises burden on business. This is the option that we expect to best meet the government’s aim for balance between AI and creative industries, and to provide the highest overall benefits to business.

Monetised impact – Directional Rating *Uncertain (Based on likely business £NPV)*

​​We are not able to monetise the impacts on business at this stage. As stated above, almost no quantitative information was provided on the Text and Data Mining questions during the 2021 consultation. Furthermore, AI technology and “generative” AI in particular has developed rapidly since 2021. An aim of consultation is to seek data from stakeholders that allows impacts to be monetised. The full expected impact and scale is described below.​

Non-monetised impacts – Directional Rating *Positive*

​​Expanding on the high-level impact identified above, we examine what the likely most significant impacts on business will be and provide a sense of scale where possible. Most of the evidence presented here is anecdotal, based on responses to the 2021 consultation and stakeholder views since. The consultation is seeking to update this information and provide a richer evidence base.

​

​Legal certainty:

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​Under the current legal framework, it is possible for right holders to license their works for use in AI training, and there is evidence of this happening[[6]](#footnote-7). However, the current dispute over the legal framework means negotiations may be difficult and may not achieve optimal outcomes for negotiating parties. Legal uncertainty also tends to favour large firms which are able to afford attendant legal costs. Regardless of the detail of our approach, we expect legal certainty to be increased and legal costs to be reduced, supporting investment in technology, and licensing opportunities.

​

​Litigation (both frequency and cost) is also likely to be reduced if the law is clarified. Some estimates of the typical IP litigation cost in the High Court range around £250k-£1m per side[[7]](#footnote-8), though this is likely to be at the higher-end of legal costs. We are assuming that the scale of costs and lack of cases being brought by smaller rights holders on this issue suggests that it is not a realistic means for them. Furthermore, while there is some monitoring of alleged infringement by larger rightsholder groups[[8]](#footnote-9), this is difficult for smaller businesses. Therefore, under the current conditions small rights holders may not hold significant negotiating power to push for licensing agreements.

​

​Familiarisation and set-up costs:

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​The most significant familiarisation and set up costs will arise from the rights reservation mechanism. Protocols are already being developed and used without this regulation in place. Over half of news publishers block the main generative AI web-crawlers using the robots.txt standard. AI developers generally respect this standard and offer various implementations of it. More sophisticated approaches (such as using metadata or notifying developers directly) are also being developed. This could accelerate the need to develop and potentially standardise these tools to ensure consistency (the need for standardisation is being consulted on).

​

​There are approximately 265,000 businesses in the UK creative industries. Within this, some of the most likely sectors to be affected (and number of businesses) are: Music, performing and visual arts (38,000) and Film, TV, video, radio and photography (37,000) and publishing (11,000)[[9]](#footnote-10). A range of stakeholders responding to the 2021 consultation indicated that a rights reservation mechanism could be significantly burdensome for right holders, particularly for smaller businesses. There are not estimates available showing this potential cost per businesses, or whether the development of standards has decreased this cost. There are approximately 3,000 companies providing AI infrastructures, products and services[[10]](#footnote-11). The set-up costs to AI service providers could be lower on aggregate if they already have the capabilities to comply with the regulation. Multiple AI developers have supported a rights reservation, suggesting this would not be significantly inhibiting to them[[11]](#footnote-12).

​

​Given the number of businesses affected, the set-up costs could be in the order of millions of pounds on aggregate. Depending on the standards developed, this could also lead to annual maintenance costs. This is because rights holders would need to ensure that new content continued to reserve their rights.

​

​However, familiarisation and set-up costs within the UK will be reduced to the extent that firms already comply with similar standards in order to operate in other markets, most notably the EU which takes a similar approach. Many firms, both AI and creative industries, who operate in the EU will already comply with EU standards. Therefore, the cost to UK businesses will be any additional costs above those already assumed for EU compliance. A greater proportion of firms in the creative industries in general are small and micro compared to AI firms, and would therefore be less likely to operate internationally.

​

​Licensing:

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​We consider licensing as a transfer between AI developers and right holders, with attendant transaction costs to each. Licensing will take place when a) the value of licensed works to an AI developer meets or exceeds the cost of a licence (plus transaction costs) and b) the licence generates sufficient return to right holders (above their transaction costs). If the preferred option created lower costs per transaction, this should increase licensing activity by both sides.

​

​There is uncertainty about the direction of impact of the preferred option on licensing revenue. Generally, right holders responding to the 2021 consultation indicated that AI developers could already obtain a license for using content for TDM purposes but in most areas they were choosing not to (whether lawfully or otherwise) and evidence of licensing was limited. Since 2021 more licensing has been reported, but it still appears to be in its infancy.

​

​A clearer and more enforceable copyright framework in which the reservation of rights is respected will mean it is more difficult to obtain access to certain types of work without a licence. Where works or collections of works cannot be substituted, the benefit to developers of licensing those works will increase, licensing will be more likely to occur, and the cost of licences (and revenues to right holders) may increase to reflect increased value.

​

​For example, if all mainstream press content owners reserve their rights, developers of AI services which seek to provide factually accurate answers to user queries are more likely to value licensing content from news providers. There will be more incentive to them to enter into contracts and revenues to news publishers should increase.

​

​On the other hand, where works are more “generic” unreserved content is more likely to substitute for that content which is reserved. The value of a licence for such works to an AI firm will be lower, as they will be able to obtain similar works for free under the exception, and licensing will be less likely to take place.

​

​An example of this may be where an AI is trained to generate images of cats and dogs. Millions of suitable images are likely to exist, which do not have their rights reserved. The value to an AI developer of licensing such content is likely to be reduced, and therefore the willingness to pay for licensing is lower. However, some firms may choose to license content rather than use content under the exception, if licensed content has additional value to them. For example, high-quality, curated photographs of animals, including rare breeds etc., will be of more value than generic snapshots. Overall, the licensing picture is likely to be mixed, with AI firms making individual decisions based on their resources and the results they want to achieve.

​

​Finally, for some right holders who already receive income under the status quo, and who do not reserve their rights under the new system (e.g. due to financial or technical barriers), there could be a fall in revenue. However, we do not expect this to be widespread as most actively licensed content is very likely to have its rights reserved, and much of it is expected to already utilise protocols for reserving rights.

​

​In summary, we expect licensing activity to increase, but the extent will depend upon the applications of specific AI technologies and the nature of the works they are trained on. At the upper end of the scale, international evidence has shown that AI developers have agreed licensing deals in the order of millions of pounds *per transaction*[[12]](#footnote-13). However, other content will be of lower value. We will seek evidence of real-world licensing during consultation to test our assumptions.

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​Wider impacts:

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​The net direct impact on the UK economy could depend on the extent to which AI developers are foreign-owned and therefore where benefits to them would be a leakage from the UK economy in the first-round impact.

​

​There could be second-round impacts on AI users. If the overall transaction costs associated with licensing decrease, this could result in a lower cost of AI to users compared to the counterfactual. However, if the rights reservation measures or wider costs were to lead to net cost to AI firms, the inverse could happen. The use of a greater pool of data should have a positive impact on the capability of AI models. This could lead to greater revenue for AI firms and greater second-round benefits for AI users. Increased AI adoption from this policy option combined with consumer demand for AI products and services, may create new or larger markets within which firms including small and micro firms can compete and grow.

Conclusion

Overall, the expectation is that the preferred option should make it easier for AI developers and rights holders to enter into licensing agreements (whilst improving the overall access for AI developers, and control for rightsholders). The second-round impacts (e.g. on model quality and investment) are also expected to lead to positive outcomes for UK businesses. The qualitative assessment at this stage is that these benefits should outweigh the set-up and ongoing costs. Whilst there is still a large degree of uncertainty, the non-monetised impacts described are expected to be positive.

Any significant or adverse distributional impacts? – Directional Rating *Neutral*

​​We assess that the preferred option should minimise adverse distributional impacts. For rights holders and the creative industries, whose businesses (particularly small and micro) are more likely to lose out, we expect the rights reservation mechanism to provide control over the use of their works.

​

​We haven’t identified any wider distributional impacts on businesses.

**A(3) Expected impacts on households**

Description of overall household impact – Directional Rating *Uncertain*

We have identified some knock-on impacts on individuals from increased investment and adoption of AI. However, the overall impacts and marginal change from this policy are highly uncertain and we are unable to monetise this.

Monetised impacts – Directional Rating *Uncertain*

As above, no impacts have been monetised at this stage.

Non-monetised impacts – Directional Rating *Uncertain*

​​The public will be able to continue to access generative AI services under this option. Based on generative AI model advances since the previous consultation in 2021, we expect availability of varied AI models will continue to increase in the counterfactual. This option has the potential to increase investment in AI, which has knock-on impacts on households.

​

​The benefits of AI on wider society are extensive. This ranges from increased productivity for workers from using AI for generative or automated purposes[[13]](#footnote-14)[[14]](#footnote-15), to healthcare benefits from speeding up the development of diagnostic tools[[15]](#footnote-16). Potential increase of AI sector investment in the UK may have a positive impact on employment opportunities, but AI is also expected to displace certain jobs, and the overall effect of this is uncertain[[16]](#footnote-17). Several negative externalities and disbenefits are also associated with AI, such as environmental costs from increased energy-use to train AI models[[17]](#footnote-18).

​

​The net impacts of this policy on households are most likely to be driven by improved quality of AI outputs through richer data inputs and investment. This may lead to increased adoption of AI by individuals but, compared to the counterfactual and other drivers of uses, the effect of this policy may be considered more marginal. Overall, the impact is highly uncertain.

Any significant or adverse distributional impacts? – Directional Rating *Neutral*

​​We do not believe there are significant adverse or distributional impacts on households or individuals from the change in regulations.

**Part B: Impacts on wider government priorities**

**Business environment:** Does the measure impact on the ease of doing business in the UK? – Directional Rating *Supports*

The Government’s preferred option could make the UK a more attractive business environment for both creative industries and AI firms by providing legal certainty in how to operate in the context of generative AI.

From the perspective of AI developers, this could reduce barriers to entry for new market entrants, in particular for SMEs and researchers looking to utilise the text and data mining exception. Creating a more competitive business environment could incentivise SMEs and new entrants to bring innovative products and services to market. From the perspective of creative industry firms, introducing rights reservation and transparency measures should improve the competitive environment for transactions with AI developers. This clearer mechanism will mean smaller rights holders will have greater control and ability to enforce their rights.

However, new entrants from both the AI sector and creative industries could face higher barriers to entry from needing to comply with the rights reservation mechanism. This is anticipated to be harder for small and medium creative industry businesses who don‘t have the expertise of implementing such protocols. This could lead to an imbalance in the ability of larger rights holders to reserve their rights compared to smaller business, limiting competition in these sectors. Therefore, improving the business environment will depend on ensuring the rights reservation function is accessible and efficient.

Interoperability with the EU regime could provide reduced burden for international firms operating in multiple jurisdictions. This should contribute to improving the competitiveness of the UK AI sector as a place to invest.

**International Considerations:** Does the measure support international trade and investment? – Directional Rating *Uncertain*

The preferred option would be interoperable with (though not necessarily the same as) the EU’s approach. As such it could reduce costs for firms complying with copyright law in the UK and the EU. We have considered a number of other international approaches in this area when developing the policy options for consideration in the consultation.

We recognise the creative and tech industries are global and countries around the world are grappling with the same challenges. We will need to work closely with other leading AI economies and where possible encourage alignment of standards and approaches such as the development of the rights holder rights reservation mechanism internationally.

There is a potential for increased investment in the UK from AI firms, including international investment with this approach.

**Natural capital and Decarbonisation:** Does the measure support commitments to improve the environment and decarbonise? – Directional Rating *Uncertain*

The marginal impact caused by the measure is unlikely to have a significant impact on natural capital or decarbonisation.

To the extent that this regulatory change causes an increased use of AI tools, there could be a negative impact on carbon emissions from direct uses. In the long-term, AI investment could support decarbonisation by improving ability to develop AI-led solutions.

**Computer Generated Works – Short list options**

We have assessed the short-list options against the following objectives:

### **​Clarity:** The copyright framework should provide legal clarity on what is and is not protected by copyright, for the benefit of right holders and users.

### **​Incentives:** Copyright should encourage and reward creative output but should not over-regulate where it is not needed.

### **​Balance:** Copyright should encourage human endeavour while not hindering technological advancement.

### **Option 0 – No legal change, maintain the current provisions.** In this option the current CGW provisions will be maintained. There is a general lack of evidence in this area. To justify continuing with the current provisions we would want to see evidence that the provision provides necessary incentives and remains fit for purpose in its current form. The Government recognises legal clarity in this scenario may only come via the current provision being tested in the courts providing a relevant legal precedent. Maintaining the current provision as drafted may therefore perpetuate legal uncertainty around its scope.  In view of our current evidence base there does not appear to be a strong justification for maintaining this form of protection.In view of these factors, the Government is minded to reject this option to maintain the current CGW provision at this stage. However, we welcome information on whether this provision is being used, its economic impact, and how it is being interpreted in practice.

**Option 1 - Reform the current protection to make it fit for purpose.**Under this option we would clarify the existing copyright protection for CGWs. Protection of AI outputs by “traditional” copyright (authorial and entrepreneurial) would be unaffected. Under this option the role of “originality” in relation to CGWs would be clarified. As the criteria for protecting a CGW are not clear there may be a case for setting out more clearly the conditions when a CGW will be protected. There is a lack of evidence to date to show that the current CGW right is being used, or provides incentives needed to encourage AI development or use. Therefore, this option would be justified if there is evidence that a reformed right which is legally clear could be crafted to incentivise the production or investment in AI technology, whilst still promoting human creativity**.** The Government will therefore assess this option in light of evidence received through the consultation. We welcome information on whether this provision would be of value if clarified, how that should be approached, and evidence of its economic impacts.

**Option 2 - Remove specific protection for CGWs.** Under this option we would remove the specific protection provided to CGWs by s9(3) CDPA. Works that are AI-assisted but which exhibit human creativity would continue to be protected. AI generated music and video could continue to be protected as sound recordings, films and broadcasts. The existing evidence base, including from the 2021 consultation, suggests there is little evidence of firms relying on CGW protections. Concerns have also been raised of potential negative impacts on human-centred creativity. There does not seem to be evidence that the lack of protection for CGWs in other territories – including the US and most of the EU – has had any detrimental impact on either AI development or use.We also understand some AI companies have voluntarily waived their rights to any outputs from their generative AI systems under their terms and conditions, suggesting protection of outputs is not a motivating factor in AI development. This option will be justified if there does not appear to be strong justification for maintaining any form of CGW protection. Should consultation reveal insufficient evidence of positive impacts from CGW protection, our preference will be to remove it.

**Small and micro business assessment**

As detailed above, a greater proportion of creative industry business are small and micro (99%) compared to the AI sector (88%).[[18]](#footnote-19)[[19]](#footnote-20) Small and micro businesses are also less likely to be users of AI.[[20]](#footnote-21)

For option 0 – no legal change, maintain the current provisions, based on current evidence, small and micro business rights holders, AI firms and users would likely continue to face ongoing legal uncertainty for the long term if the existing provisions were maintained.

For option 1 – reform the current protection to make it fit for purpose – this would likely have benefit for small, micro and new entrant firms through greater legal clarity. Legal costs for litigation procedures can be significant so, if this option achieves its objectives, it should alleviate some of the burden on SMEs. It would also have benefit to small and micro AI firms if this option is shown to encourage the development or use of AI technology. Direct users of AI tools to create outputs could get greater protection, though this may benefit a greater proportion of large and medium businesses, if they are more likely to utilise AI tools to generate outputs.

However, if the protection is used more widely as a result of the reform it may have negative impacts on users and human-created outputs. This includes a potentially disproportionate impact on any small and micro businesses looking to utilise generative AI outputs as third parties, who may not have the resources to get permission for this use. Furthermore, it could have negative impacts on small and micro creative industries, if protecting computer-generated works leads to greater competition with human-created material compared to the counterfactual.

For option 2 - removal of the CGWs provisions could provide the most legal certainty and therefore have a positive impact on AI, creative industries, rights holders and generative AI tool users. As above, this would likely be of most benefit to Small, Micro and Medium sized businesses with lower legal resources.

However, any negative impact will likely be on tech companies who are currently using the right. In the 2021 consultation, some respondents said that users and developers of AI do rely on these protections. There was little supporting evidence for this. Given this lack of evidence, it is difficult to quantify what this might be and, given the lack of legal precedent in this area, difficult to quantify what the value of those rights might be.

There could also be a positive impact on the creative industries if the current CGW right is removed. This could remove the risk of CGWs negatively impacting innovation and effectively crowding-out human creators and their works. By removing the CGW provision, this would promote and protect the status of human creativity. However, it is difficult to quantify this given the lack of evidence of how extensively the existing CGW right is used and the value of those rights.

### **Computer Generated Works – Theory of Change**

The theory of change diagram (Figure 2) maps out the following steps in the logic model:

**Issues:** Legal uncertainty around the basis for CGW under copyright law (s9(3)), CGW protection might crowd out human creation, and CGW protection might have costs to users.

**Activities:** Option 1: Reform CGW provision: Reform the existing provision to clarify the scope of protection for CGW. Option 2: Remove CGW provision: Remove the existing provision and do not replace with any protection for CGWs.

**Outputs:** Option 1 & 2: Legal clarity for rights holders, AI companies and general users. Option 1: A stronger basis for use of the CGW right. Option 2: No use of a CGW right for new creations.

Assumptions linking the issues to outputs: CGW right doesn't incentivise AI creation, and human creations might be inhibited by the protection of CGWs to some extent.

**Outcomes:** Option 1 & 2: Removes barriers to entry for creative firms, incentivises human-centred creativity and skill, and allows for flexible adoption of AI tools.

**Impacts:** Option 1 & 2: Meet the government's policy objectives, which are, Clarity, Incentives and Balance. This could also increase competition and innovation.

Assumptions linking the outputs to impacts**:** The reform or removal of CGW protections incentivises economic activity, and the outcomes are significantly different to the counterfactual under option 0: Do nothing.

**Figure 2: Computer Generated Works Theory of Change**



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2. [DCMS and Digital Economic Estimates: Business Demographics, 2023 - GOV.UK (www.gov.uk)](https://www.gov.uk/government/statistics/dcms-and-digital-economic-estimates-business-demographics-2023). Figures are for 2023. [↑](#footnote-ref-3)
3. For example, Spawning AI’s system, currently being used by Stability AI. [↑](#footnote-ref-4)
4. DSIT 2023: [Artificial Intelligence Sector (publishing.service.gov.uk)](https://assets.publishing.service.gov.uk/media/641d71e732a8e0000cfa9389/artifical_intelligence_sector_study.pdf) [↑](#footnote-ref-5)
5. Business Insights and Conditions Survey (BICS): Wave 105 4 April 2024: [Business insights and impact on the UK economy - Office for National Statistics (ons.gov.uk)](https://www.ons.gov.uk/economy/economicoutputandproductivity/output/datasets/businessinsightsandimpactontheukeconomy) [↑](#footnote-ref-6)
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10. DSIT 2023: [Artificial Intelligence Sector (publishing.service.gov.uk)](https://assets.publishing.service.gov.uk/media/641d71e732a8e0000cfa9389/artifical_intelligence_sector_study.pdf)  [↑](#footnote-ref-11)
11. [[House of Lords - Large language models and generative AI - Communications and Digital Committee (parliament.uk)](https://publications.parliament.uk/pa/ld5804/ldselect/ldcomm/54/5411.htm)](https://publications.parliament.uk/pa/ld5804/ldselect/ldcomm/54/5411.htm) [↑](#footnote-ref-12)
12. [The Verge - OpenAI’s news publisher deals reportedly top out at $5 million a year](https://www.theverge.com/2024/1/4/24025409/openai-training-data-lowball-nyt-ai-copyright) [↑](#footnote-ref-13)
13. [Measuring the Productivity Impact of Generative AI | NBER](https://www.nber.org/digest/20236/measuring-productivity-impact-generative-ai) [↑](#footnote-ref-14)
14. [Global Economics Analyst The Potentially Large Effects of Artificial Intelligence on Economic Growth (BriggsKodnani) (key4biz.it)](https://www.key4biz.it/wp-content/uploads/2023/03/Global-Economics-Analyst_-The-Potentially-Large-Effects-of-Artificial-Intelligence-on-Economic-Growth-Briggs_Kodnani.pdf) [↑](#footnote-ref-15)
15. [Artificial intelligence in healthcare: transforming the practice of medicine - PMC (nih.gov)](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8285156/) [↑](#footnote-ref-16)
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