Scores for Stability AI on the 2023 Foundation Model Transparency Index

Background

- 1. Please see the paper describing the Foundation Model Transparency Index in order to understand what this document includes. The paper provides necessary background on (i) what these indicators are and why they were chosen, (ii) our standardized process for scoring the transparency of foundation model developers, and (iii) what these scores mean in context.
- 2. This document contains only information that was publicly available before September 15, 2023. It has not been updated and should be interpreted as a snapshot of transparency as of September 15, 2023.
- 3. In order to assess the transparency of foundation model developers, we used a rigorous, standardized <u>search protocol</u> to find publicly available information related to these indicators. You can find more information about this search protocol in the paper describing the Foundation Model Transparency Index.
- 4. We evaluate every company in this same way—you can find scoring documents for the other companies here.
- 5. We evaluate each company on 100 indicators of transparency. You can find the definition of each indicator and additional information about how each indicator was scored here.
- 6. Scores for each indicator are either 0 or 1. If the score is a 0, we do not provide a source for the score because our standardized search protocol (which includes many relevant sources) did not yield enough information to award a point. If the score is a 1, we provide a source that includes the information we cite in the justification for the score.
- 7. We evaluate each company on the basis of its flagship foundation model; in the case of Stability AI, we evaluate Stable Diffusion 2.
- 8. In advance of releasing the Foundation Model Transparency Index, we reached out to Stability AI for comment (along with the 9 other companies we evaluated) and offered an opportunity to provide feedback on the index and the organization's scores.

Scores for Each Indicator

1. Upstream \rightarrow Data \rightarrow Data Size

- o Score: 1
- Justification: Stable Diffusion 2 is trained on LAION-5B, a dataset of 5.8B image-text pairs.
- Source:
 http://web.archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/archive.org/web/archive.org/web/archive.org/web/archive.org/web/archive.org/web/archive.org/web/archive.org/web/archive.org/web/archive.org/web/archive.org/web/archive.org/web/archive.org/web/archive.org/web/archive.org/web/archive.org/web/archiv

2. Upstream \rightarrow Data \rightarrow Data Sources

- o Score: 0
- Justification: The LAION-5B paper provides the composition in Section 4 in the sense
 of text-image pairs vs text, but does not describe the data sources as required, besides
 that they originate from Internet crawls.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

3. Upstream \rightarrow Data \rightarrow Data Creators

- o Score: 0
- Justification: Stability partners with Spawning.AI, which provides the HaveIBeenTrained.com interface. However, this in itself does not provide a characterization of who created the data, though it does provide valuable transparency into the data for the public/data creators to take action.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

4. Upstream → Data → <u>Data Source Selection</u>

- o Score: 0
- Justification: Stability discloses it trains on LAION-5B, though it does not specify the
 protocol it adhered to for selecting LAION-5B or its specific subsets. LAION-5B itself
 does not describe its source selection protocol.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

5. Upstream \rightarrow Data \rightarrow Data Curation

- o Score: 1
- Justification: Data was curated to remove short data (< 5 characters; < 5KB image data), and malicious/large/redundant images. Further, CLIP and multilingual CLIP were used to filter dissimilar image-text pairs.
- o Source: https://arxiv.org/pdf/2210.08402.pdf

6. Upstream \rightarrow Data \rightarrow Data Augmentation

- o Score: 1
- Justification: Details of data make clear there is no data augmentation (instead repeated selection of different subsets of LAION-5B).
- o Source: https://arxiv.org/pdf/2210.08402.pdf

7. Upstream \rightarrow Data \rightarrow Harmful Data Filtration

- o Score: 1
- Justification: The LAION-5B authors filter illegal content using a CLIP-based filter.
 Beyond that, offensive examples are tagged rather than filtered using QF16 and a new sexualized content classifier, both derived from CLIP embeddings. All artifacts for filtering are released. The SD 2 authors further filter using LAION's NSFW detector with p {unsafe} = 0.1
- Source: http://web.archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/20230914232112/https://web/archive.org/web/archive.

8. Upstream \rightarrow Data \rightarrow Copyrighted data

- o Score: 0
- Justification: No information found regarding the copyright status of the data used to build Stable Diffusion 2.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

9. Upstream \rightarrow Data \rightarrow Data License

- o Score: 0
- Justification: No information found regarding the license status of the data used to build Stable Diffusion 2.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

10. Upstream → Data → Personal Information in Data

- o Score: 0
- Justification: No information found related to the inclusion or exclusion of personal information in specific parts of the data.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

11. Upstream \rightarrow Data Labor \rightarrow <u>Use of Human Labor</u>

- o Score: 0
- Justification: While Stability describes the data it used, and LAION-5B does provide significant details on the construction of the dataset, ultimately it is unclear if or how human labor is involved in the data process (for example, how is any human annotation or review involved in the different stages of creating LAION-5B?).
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

12. Upstream \rightarrow Data Labor \rightarrow Employers of Data Laborers

- o Score: 0
- Justification: We do not find any clear information on the role of human labor and, thereby, the employment of data laborers.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

13. Upstream → Data Labor → Geographic Distribution of Data Laborers

- o Score: 0
- Justification: We do not find any clear information on the role of human labor and, thereby, the geographic distribution of data laborers.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

14. Upstream \rightarrow Data Labor \rightarrow Wages

- o Score: 0
- Justification: We do not find any clear information on the role of human labor and, thereby, the wages of data laborers.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

15. Upstream → Data Labor → <u>Instructions For Creating Data</u>

- o Score: 0
- Justification: We do not find any clear information on the role of human labor and, thereby, the instructions given to data laborers.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

16. Upstream \rightarrow Data Labor \rightarrow <u>Labor Protections</u>

- o Score: 0
- Justification: We do not find any clear information on the role of human labor and, thereby, the protections afforded to data laborers.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

17. Upstream \rightarrow Data Labor \rightarrow Third Party Partners

- o Score: 1
- Justification: Stability discloses a series of acknowledgements of different groups in the community who built dependencies or otherwise helped in the Stable Diffusion 2 effort.
- o Source: https://github.com/Stability-AI/stablediffusion

18. Upstream → Data Access → Queryable External Data Access

- o Score: 1
- o Justification: The LAION-5B dataset is publicly available.
- Source: http://web.archive.org/web/20230813013818/https://laion.ai/blog/laion-5b/

19. Upstream → Data Access → <u>Direct External Data Access</u>

- o Score: 1
- Justification: The LAION-5B dataset is publicly available.
- o Source: http://web.archive.org/web/20230813013818/https://laion.ai/blog/laion-5b/

20. Upstream \rightarrow Compute \rightarrow Compute Usage

- o Score: 0
- o Justification: Stability discloses the hardware but not the amount of compute used.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

21. Upstream → Compute → <u>Development Duration</u>

- o Score: 1
- Justification: Duration is disclosed as 200000 hours in model card. Note: model card says Stable Diffusion 1 for environmental impact section, but this appears to be an error, given numbers differ from the model card for v1.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

22. Upstream \rightarrow Compute \rightarrow Compute Hardware

- o Score: 1
- o Justification: Hardware is disclosed as 256 NVIDIA A100 40GB GPUs.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-diffusion-2

23. Upstream → Compute → <u>Hardware Owner</u>

- o Score: 1
- Justification: Hardware owner is disclosed as Amazon cloud (AWS).
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

24. Upstream → Compute → Energy Usage

- o Score: 0
- Justification: No information found about the amount of energy expended in building the model.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

25. Upstream \rightarrow Compute \rightarrow Carbon Emissions

- o Score: 1
- Justification: Emissions are disclosed as 15000kg CO2eq, which is 16.5 tC02eq.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

26. Upstream → Compute → <u>Broader Environmental Impact</u>

- o Score: 0
- Justification: No information found any broader environmental impacts from building the model.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

27. Upstream \rightarrow Methods \rightarrow Model Stages

- o Score: 1
- Justification: Model stages are clearly disclosed in model card.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

28. Upstream \rightarrow Methods \rightarrow Model Objectives

- o Score: 1
- Justification: Model objectives (e.g. v-objective; reconstruction loss) are fairly clear.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

29. Upstream \rightarrow Methods \rightarrow Core Frameworks

- o Score: 1
- Justification: Core frameworks are made clear through publicly released code.
- Source: http://web.archive.org/web/20230915015736/https:/github.com/Stability-AI/stablediffusion

30. Upstream \rightarrow Methods \rightarrow Additional Dependencies

- o Score: 1
- Justification: Model description makes reasonably clear there are no additional dependencies as does the released code.

31. Upstream \rightarrow Data Mitigations \rightarrow <u>Mitigations for Personally Identifiable Information</u>

- o Score: 1
- Justification: LAION-5B authors discuss privacy in Section G.1 but do not implement privacy mitigations, but do allow for individuals to exclude content by request.
- o Source: https://arxiv.org/pdf/2210.08402.pdf

32. Upstream \rightarrow Data Mitigations \rightarrow Mitigations for Copyright

- o Score: 0
- Justification: Stability does not disclose any mitigations for copyright, though we do
 acknowledge it has publicly argued that training of models is protected in the US under
 fair use doctrine.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

33. Model \rightarrow Model Basics \rightarrow Input Modality

- o Score: 1
- Justification: The input modality for Stable Diffusion 2 is text per the Stability AI's blog post announcing the release of the model.
- Source: http://web.archive.org/web/20230904230904/https://stability.ai/blog/stable-diffusion-v2-release

34. Model → Model Basics → Output Modality

- o Score: 1
- Justification: The output modality for Stable Diffusion 2 is images per the Stability AI's blog post announcing the release of the model.
- Source: http://web.archive.org/web/20230904230904/https://stability.ai/blog/stable-diffusion-v2-release

35. Model → Model Basics → Model Components

- o Score: 1
- Justification: Components are discussed fairly clearly (e.g. image autoencoder, text encoder using OpenCLIP, UNet backbone that connects text encoder outputs with latent diffusion model using cross attention).
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

36. Model → Model Basics → Model Size

- o Score: 0
- Justification: Model size is not clearly disclosed, though it could be inferred given weights are public, but our standard is it must be explicitly disclosed.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

37. Model \rightarrow Model Basics \rightarrow Model Architecture

- o Score: 1
- Justification: Architecture is fairly clear, including factors (e.g. downsampling ratio in latent diffusion model) as discussed in components.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

38. Model → Model Basics → <u>Centralized Model Documentation</u>

- o Score: 1
- o Justification: Model card constitutes centralized model documentation.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

39. Model → Model Access → External Model Access Protocol

- o Score: 1
- Justification: Model weights are available via Hugging Face.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

40. Model → Model Access → Black Box External Model Access

- o Score: 1
- o Justification: Model weights are available via Hugging Face.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

41. Model → Model Access → <u>Full External Model Access</u>

- o Score: 1
- o Justification: Model weights are available via Hugging Face.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

42. Model → Capabilities → <u>Capabilities Description</u>

- o Score: 1
- Justification: Capabilities of model are described in Stability AI's blog post announcing the release of the model.
- Source: http://web.archive.org/web/20230904230904/https://stability.ai/blog/stable-diffusion-v2-release

43. Model → Capabilities → <u>Capabilities Demonstration</u>

- o Score: 1
- Justification: Capabilities of model are demonstrated via some generated images in Stability AI's blog post announcing the release of the model.
- Source: http://web.archive.org/web/20230904230904/https://stability.ai/blog/stable-diffusion-v2-release

44. Model → Capabilities → Evaluation of Capabilities

- o Score: 0
- Justification: Stability publishes a single capabilities evaluation (FID vs CLIP on COCO2017), which does not meet the requirements of at least two distinct capabilities evaluations for this indicator.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

45. Model → Capabilities → External Reproducibility of Capabilities Evaluation

- o Score: 0
- Justification: Stability publishes a single capabilities evaluation (FID vs CLIP on COCO2017), which does not meet the requirements of at least two reproducible capabilities evaluations for this indicator.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

46. Model → Capabilities → Third Party Capabilities Evaluation

- o Score: 0
- Justification: No information found indicating third parties have evaluated Stable Diffusion 2's capabilities.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

47. Model \rightarrow Limitations \rightarrow <u>Limitations Description</u>

- o Score: 1
- Justification: Extensive description of limitations in the model card, including lack of photorealism and inability to generate legible text.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

48. Model \rightarrow Limitations \rightarrow <u>Limitations Demonstration</u>

- Score: 0
- Justification: No demonstrations of limitations, except issue of compositionality.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

49. Model → Limitations → Third-Party Evaluation of Limitations

- o Score: 1
- Justification: Limitations can be evaluated given that the model weights are public.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

50. Model \rightarrow Risks \rightarrow Risks Description

- o Score: 1
- Justification: Both unintentional risks (e.g. bias) and intentional risks (e.g. malicious use) are described extensively.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

51. Model → Risks → Risks Demonstration

- o Score: 0
- Justification: No information found related to illustrative examples of Stable Diffusion 2's risks.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

52. Model → Risks → <u>Unintentional Harm Evaluation</u>

- o Score: 0
- Justification: No information found related to rigorous evaluations of the potential for the model to facilitate unintentional harm.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

53. Model → Risks → External Reproducibility of Unintentional Harm Evaluation

- o Score: 0
- Justification: No information found related to the reproducibility of unintentional harm evaluations as there is no information found about the evaluations themselves.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

54. Model → Risks → <u>Intentional Harm Evaluation</u>

- o Score: 0
- Justification: No information found related to rigorous evaluations of the potential for the model to facilitate intentional harm.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

55. Model → Risks → External Reproducibility of Intentional Harm Evaluation

- o Score: 0
- Justification: No information found related to the reproducibility of intentional harm evaluations as there is no information found about the evaluations themselves.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

56. Model → Risks → Third-Party Risk Evaluation

- o Score: 0
- Justification: No information found indicating that third parties have evaluated the risks of Stable Diffusion 2.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

57. Model → Model Mitigations → <u>Mitigations Description</u>

- o Score: 0
- Justification: Stability discloses information about data filtration as a safety mitigation in addition to NSFW filters. While relevant, such data-related mitigations are covered under the associated upstream indicators, and as a result these do not constitute the multiple mitigations required for this indicator.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

58. Model → Model Mitigations → <u>Mitigations Demonstration</u>

- o Score: 0
- Justification: No information found related to illustrative examples of mitigations.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

59. Model → Model Mitigations → <u>Mitigations Evaluation</u>

- o Score: 0
- Justification: No information found related to rigorous evaluations of model mitigations.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

60. Model → Model Mitigations → External Reproducibility of Mitigations Evaluation

- o Score: 0
- Justification: No information found to indicate mitigations evaluations are externally reproducible.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

61. Model → Model Mitigations → Third Party Mitigations Evaluation

- o Score: 0
- Justification: No information found to indicate mitigations can be evaluated by third parties.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

62. Model → Trustworthiness → <u>Trustworthiness Evaluation</u>

- o Score: 0
- Justification: Stability publishes a single capabilities evaluation (FID vs CLIP on COCO2017), which is not an evaluation of robustness, reliability, uncertainty, calibration, causality, interpretability, or explainability.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

63. Model → Trustworthiness → External Reproducibility of Trustworthiness Evaluation

- o Score: 0
- Justification: Stability publishes a single capabilities evaluation (FID vs CLIP on COCO2017), which we do not consider to be a trustworthiness evaluation.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

64. Model → Inference → <u>Inference Duration Evaluation</u>

- o Score: 0
- Justification: No information found related to the time required for model inference.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

65. Model → Inference → Inference Compute Evaluation

- o Score: 0
- Justification: No information found related to compute usage for model inference.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

66. Downstream → Distribution → Release Decision-Making

- o Score: 0
- Justification: No information found about Stability AI's protocol for deciding to release Stable Diffusion 2.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

67. Downstream \rightarrow Distribution \rightarrow Release Process

- Score: 1
- Justification: Model weights are made fully available upon release with no intermediate steps.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

68. Downstream → Distribution → <u>Distribution Channels</u>

- o Score: 1
- Justification: Downloading model weights on Hugging Face and accessing the model via the Stability API, are disclosed as distribution channels.
- Source: https://stability.ai/blog/stable-diffusion-v2-release and
 http://web.archive.org/web/20230915015736/https://github.com/Stability-AI/stablediffusion

69. Downstream \rightarrow Distribution \rightarrow Products and Services

- o Score: 0
- Justification: Stability provides a range of services and tools built upon its models, such as plug-ins for Blender and Photoshop and an upscaling tool for increasing image resolution, but in spite of significant investigation, it remains unclear if any of these services rely on Stable Diffusion 2.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

70. Downstream \rightarrow Distribution \rightarrow Detection of Machine-Generated Content

- o Score: 1
- Justification: Stable Diffusion has an invisible watermark, as specified in the github repository for the model.
- Source: http://web.archive.org/web/20230915015736/https:/github.com/Stability-AI/stablediffusion

71. Downstream \rightarrow Distribution \rightarrow Model License

- o Score: 1
- Justification: License for Stable Diffusion 2 (CreativeML Open RAIL++-M License) are disclosed
- Source: https://github.com/Stability-AI/stablediffusion/blob/main/LICENSE-MODEL

72. Downstream \rightarrow Distribution \rightarrow Terms of Service

- o Score: 1
- o Justification: Stability API terms of service satisfies this indicator.
- o Source:

https://web.archive.org/web/20230915015607/http://web.archive.org/screenshot/https://platform.stability.ai/legal/terms-of-service

73. Downstream → Usage Policy → Permitted, Restricted, and Prohibited Users

- o Score: 0
- Justification: No information found that specifies who can and cannot use Stable Diffusion 2.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

74. Downstream → Usage Policy → Permitted, Restricted, and Prohibited Uses

- o Score: 1
- Justification: Many such uses are disclosed in the acceptable use policy, the license, and the API terms of service.
- o Source:

http://web.archive.org/web/20230915015736/https://github.com/Stability-AI/stablediffus ion and

https://web.archive.org/web/20230915015607/http://web.archive.org/screenshot/https://platform.stability.ai/legal/terms-of-service and https://stability.ai/use-policy

75. Downstream → Usage Policy → <u>Usage Policy Enforcement</u>

- o Score: 1
- O Justification: Stability API terms of service state "The Services may block certain text prompts and blur resulting Content if we find (in our sole judgment) the prompt or resulting image too graphic, offensive, insensitive, or hurtful, even in circumstances where you may not have had any ill intent or where the Content does not otherwise violate the prohibitions described above. We may also block text prompts or block or remove Content that we otherwise find objectionable or that we believe in our reasonable judgment may expose us or others to any harm or liability"
- o Source:

https://web.archive.org/web/20230915015607/http://web.archive.org/screenshot/https://platform.stability.ai/legal/terms-of-service

76. Downstream → Usage Policy → <u>Justification for Enforcement Action</u>

- o Score: 0
- Justification: No information found related to whether users receive a justification when they are subject to an enforcement action for violating the usage policy. When a prompt is blocked in DreamStudio, the interface says "something isn't quite right with your prompts"
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

77. Downstream → Usage Policy → <u>Usage Policy Violation Appeals Mechanism</u>

- o Score: 0
- Justification: No information found related to a mechanism for appealing the developer's decision that the usage policy has been violated.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

78. Downstream → Model Behavior Policy → <u>Permitted, Restricted, and Prohibited Model Behaviors</u>

- o Score: 0
- Justification: While Stability makes clear which uses are permitted/restricted/prohibited, there is no information on acceptable or unacceptable model behavior.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

79. Downstream → Model Behavior Policy → Model Behavior Policy Enforcement

- o Score: 1
- O Justification: Stability API terms of service says "The Services may block certain text prompts and blur resulting Content if we find (in our sole judgment) the prompt or resulting image too graphic, offensive, insensitive, or hurtful, even in circumstances where you may not have had any ill intent or where the Content does not otherwise violate the prohibitions described above. We may also block text prompts or block or remove Content that we otherwise find objectionable or that we believe in our reasonable judgment may expose us or others to any harm or liability"
- Source: https://web.archive.org/web/20230915015607/http://web.archive.org/screenshot/https://platform.stability.ai/legal/terms-of-service

80. Downstream → Model Behavior Policy → <u>Interoperability of Usage and Model Behavior</u> Policies

- o Score: 0
- Justification: Stability does not make clear how the usage policy (e.g. usage restrictions disclosed in the license) interoperate with the model behavior policy (largely because no such policy is made clear).
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

81. Downstream → User Interface → <u>User Interaction with AI System</u>

- o Score: 1
- Justification: Advanced settings in Dream Studio show which foundation model the user is interacting with.
- o Source: https://beta.dreamstudio.ai/terms-of-service

82. Downstream \rightarrow User Interface \rightarrow <u>Usage Disclaimers</u>

- o Score: 1
- Justification: Model card is clearly attached to distribution channels and includes usage disclaimers.
- Source: https://web.archive.org/web/20230915015607/http://web.archive.org/screenshot/https://p latform.stability.ai/legal/terms-of-service
- 83. Downstream → User Data Protection → User Data Protection Policy
 - o Score: 1
 - Justification: Stability AI's privacy policy discloses protocols for storing, accessing, and sharing user data.
 - o Source: https://web.archive.org/web/20230913114342/https://aws.amazon.com/privacy/

84. Downstream → User Data Protection → Permitted and Prohibited Use of User Data

- o Score: 1
- Justification: Stability AI's privacy policy discloses permitted and prohibited uses of user data.
- Source: https://web.archive.org/web/20230913114342/https://aws.amazon.com/privacy/

85. Downstream → User Data Protection → <u>Usage Data Access Protocol</u>

- o Score: 0
- Justification: No information found related to a protocol for granting external entities access to usage data.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

86. Downstream → Model Updates → <u>Versioning Protocol</u>

- o Score: 1
- Justification: Model weights are released meaning users have access to a precise version of Stable Diffusion 2.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

87. Downstream \rightarrow Model Updates \rightarrow Change Log

- o Score: 1
- Justification: Change log included in the GitHub news tab.
- Source: http://web.archive.org/web/20230915015736/https://github.com/Stability-AI/stablediffus
 ion

88. Downstream → Model Updates → Deprecation Policy

- o Score: 1
- Justification: Model weights are released, meaning there is little risk of deprecation.
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

89. Downstream → Feedback → Feedback Mechanism

- o Score: 1
- o Justification: The developer page on the API platform has a feedback box.
- Source: https://web.archive.org/web/20230915015547/http://web.archive.org/screenshot/https://platform.stability.ai/support

90. Downstream → Feedback → Feedback Summary

- o Score: 0
- Justification: No information found related to any summary of user feedback.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

91. Downstream → Feedback → Government Inquiries

- o Score: 0
- Justification: No information found in connection with a summary of government inquiries related to the model.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

92. Downstream → Impact → Monitoring Mechanism

- o Score: 0
- Justification: No information found related to a monitoring mechanism for tracking model use.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

93. Downstream → Impact → <u>Downstream Applications</u>

- o Score: 1
- o Justification: Hugging Face's spaces tab is a sufficient proxy for downstream use
- Source: https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-di-ffusion-2

94. Downstream \rightarrow Impact \rightarrow Affected Market Sectors

- o Score: 0
- Justification: No information found related to the fraction of applications corresponding to each market sector.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

95. Downstream \rightarrow Impact \rightarrow Affected Individuals

- o Score: 0
- Justification: No information found related to the number of individuals affected by the model.
- Source: Search protocol produced no source containing sufficient information to award this point

96. Downstream \rightarrow Impact \rightarrow <u>Usage Reports</u>

- o Score: 0
- Justification: No information found related to usage statistics describing the impact of the model on users.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

97. Downstream \rightarrow Impact \rightarrow Geographic Statistics

- o Score: 0
- Justification: No information found regarding statistics of model usage across geographies.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

98. Downstream \rightarrow Impact \rightarrow Redress Mechanism

- o Score: 0
- Justification: No information found regarding any mechanism to provide redress to users for harm caused by the model.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.

99. Downstream → Documentation for Deployers → <u>Centralized Documentation for Downstream</u> Use

- o Score: 1
- Justification: GitHub, Hugging Face, and API documentation constitute centralized documentation for downstream use.
- Source:

 $\frac{http://web.archive.org/web/20230915015736/https://github.com/Stability-AI/stablediffusion}{and}$

 $\frac{https://web.archive.org/web/20230914232112/https://huggingface.co/stabilityai/stable-diffusion-2}{ffusion-2} \ and \ \frac{https://platform.stability.ai/docs/api-reference}{https://platform.stability.ai/docs/api-reference}$

100. Downstream → Documentation for Deployers → <u>Documentation for Responsible</u> Downstream Use

- o Score: 0
- o Justification: No documentation for responsible downstream use found.
- Source: No source is provided because the search protocol did not produce a source containing sufficient information to award this point.