Ergebnisse

Umfrage 456454

Anzahl der Datensätze in dieser Abfrage:	45
Gesamtzahl der Datensätze dieser Umfrage:	45
Anteil in Prozent:	100.00%

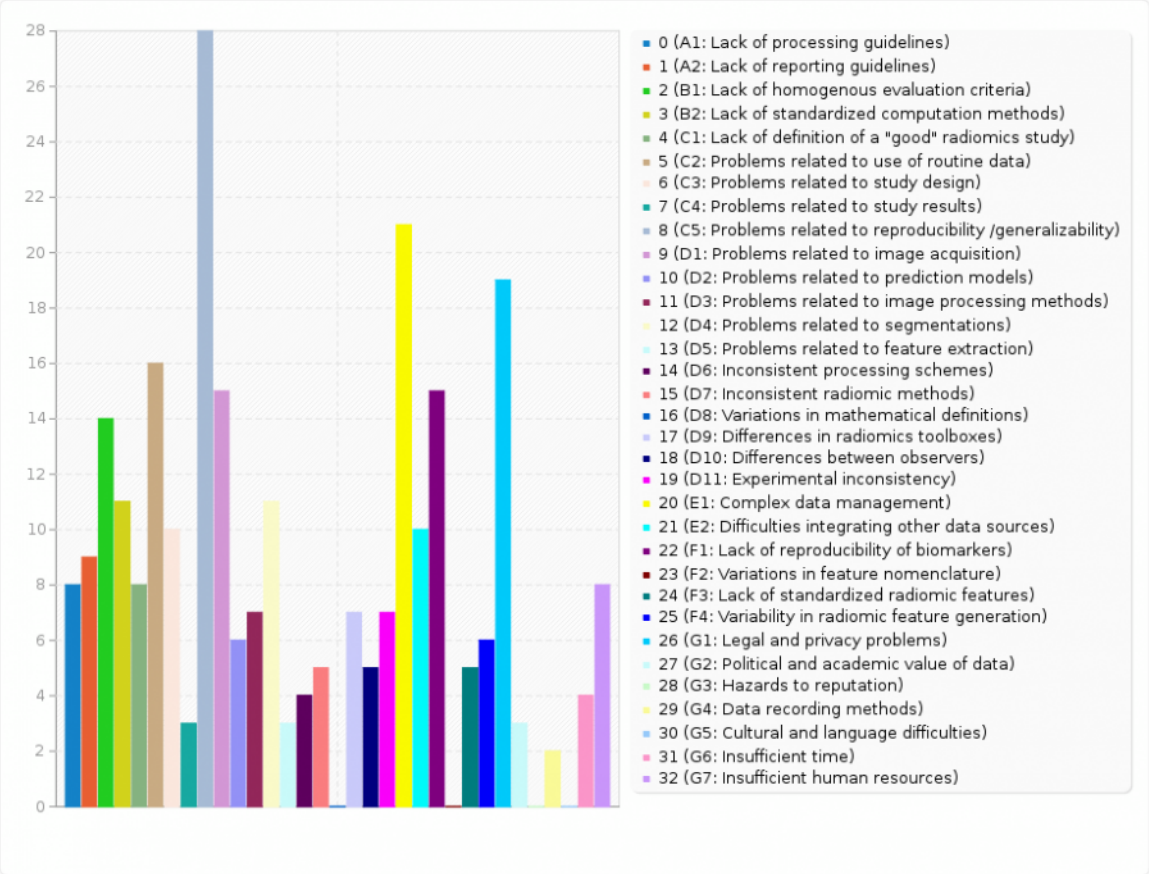
Zusammenfassung für P1

Please choose from the suggested challenges.

Antwort	Anzahl	Prozent
Lack of processing guidelines (A1)	8	17.78%
Lack of reporting guidelines (A2)	9	20.00%
Lack of homogenous evaluation criteria (B1)	14	31.11%
Lack of standardized computation methods (B2)	11	24.44%
Lack of definition of a "good" radiomics study (C1)	8	17.78%
Problems related to use of routine data (C2)	16	35.56%
Problems related to study design (C3)	10	22.22%
Problems related to study results (C4)	3	6.67%
Problems related to reproducibility /generalizability (C5)	28	62.22%
Problems related to image acquisition (D1)	15	33.33%
Problems related to prediction models (D2)	6	13.33%
Problems related to image processing methods (D3)	7	15.56%
Problems related to segmentations (D4)	11	24.44%
Problems related to feature extraction (D5)	3	6.67%
Inconsistent processing schemes (D6)	4	8.89%
Inconsistent radiomic methods (D7)	5	11.11%
Variations in mathematical definitions (D8)	0	0.00%
Differences in radiomics toolboxes (D9)	7	15.56%
Differences between observers (D10)	5	11.11%
Experimental inconsistency (D11)	7	15.56%
Complex data management (E1)	21	46.67%
Difficulties integrating other data sources (E2)	10	22.22%
Lack of reproducibility of biomarkers (F1)	15	33.33%
Variations in feature nomenclature (F2)	0	0.00%
Lack of standardized radiomic features (F3)	5	11.11%
Variability in radiomic feature generation (F4)	6	13.33%
Legal and privacy problems (G1)	19	42.22%
Political and academic value of data (G2)	3	6.67%
Hazards to reputation (G3)	0	0.00%
Data recording methods (G4)	2	4.44%
Cultural and language difficulties (G5)	0	0.00%
Insufficient time (G6)	4	8.89%
Insufficient human resources (G7)	8	17.78%

Zusammenfassung für P1

Please choose from the suggested challenges.



Zusammenfassung für P2

Would you like to make any other suggestions for important challenges? Please propose new challeges only if the following conditions are fulfilled: the proposed challenge is not covered by a challenge listed in the initial list (above); otherwise please use the option in the list (that would help us a lot, merging all the answers; thanks) you deem the proposed challenge so important that it is one of your 7 “high potentials” pick the total number of picked challenges (own proposals and selections above) should not exceed 7.

Antwort	Anzahl	Prozent
Antwort	7	15.56%
Keine Antwort	38	84.44%
Nicht gezeigt	0	0.00%

ID	Antwort
7	- Lack of strict guidelines for reviewers (and editors) to ensure scientific quality and manage the increasing number of radiomics studies - "publish or perish" principle leads to the fact that quantity rather than quality of studies is appreciated
22	The main limitation is the Medical Product Directive that essentially says that any software that is used in a medical process is a medical product and the corresponding criteria are not bearable from research groups.
23	There many items related to standardisation, but too much standardisation will restrict innovation, suggest to merge some items Major problems in my view are: 1) Challenges related to robustness of methods in real world (different scanners and protocols) 2) Deployment (how to make toolbox run at another institution) 3) Data privacy und certification regulations
34	For me, workflow integration is essential. Only fully automated analyses that can be perfectly integrated into existing workflows can finally find their way into clinical routine.
35	For the application of radiomics in clinical routine, I envision an encapsulated prediction model which is certified as a medical product and has been trained on a sufficently large cohort. . On this level, many of the study-related challenges above are not longer relevant. For simplicity, let us assume the the product produces the segmentation on its own (it would be easily verifyable that it the segmentation is correct) This product would get an input image, produce a segmentation of the region of interest, and produce a clinically relevant prediction (probably one of diagnosis, prognosis, treatment recommendation) which can be integrated into further clinical decision making. Even in this highly idealized case, there is still a highly relevant challenge: Machine learning models only learn what they see during training - therefore: How can the user be sure that the radiomics model is qualified to make a prediction on this data ? in other words: has the model seen similar data during training, or would that be an out-of-distribution case?
38	> Insufficient / Irrelevant clinical contribution (by ths I mean that the problem addressed is not relevant in clinical routine, e.g. radiomics prediction of IDH mutation status in gliomas; this could be subsumed in "Problems related to study design"
56	Lack of evidence gained by prospective evaluation