



openai-gpt-3.5-turbo-summarization for Performance Test Report

Quantitative Performance Evaluation Report

Executive Summary

This report provides a comprehensive analysis of findings from running the Quantitative Performance Evaluation Suite for `openai-gpt-3.5-turbo-summarization`. The performance evaluation suite includes the following tests `rouge`, `bertscore`, which are tailored towards Performance Test Report usage scenarios for `openai-gpt-3.5-turbo-summarization`.

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Performance Test Report **Quantitative Performance Evaluations**

Overview

This section describes the detailed methodology used to evaluate the performance of openai-gpt-3.5-turbo-summarization for Performance Test Report tasks.

Objective

The goal of quantitative (automatic) performance tests are to assess model quality and usability for Performance Test Report. In this test, we run performance evaluations on openai-gpt-3.5-turbo-summarization using the following metrics: rouge, bertscore. The evaluation was run 12 times, across 4 temperatures and sequence lengths.

ROUGE

Additional Resources: ROUGE: A Package for Automatic Evaluations of Summaries

<https://aclanthology.org/W04-1013/>

To measure model performance for text summarization tasks, a commonly used metric is ROUGE Score. ROUGE is a metric designed to evaluate summary quality against a reference text by measuring the token-level overlap between the text generated by openai-gpt-3.5-turbo-summarization and the references. Dynamo AI evaluates three types of ROUGE scores: ROUGE-1, ROUGE-2, and ROUGE-L.

ROUGE-1 measures the overlap of unigrams (i.e., tokens of length 1) between the model generated outputs and reference texts, while ROUGE-2 measures the overlap of bigrams (i.e., tokens of length 2) between the model generated outputs and reference texts. On the other hand, ROUGE-L measures the longest common subsequence between the generated text and reference.

BERTScore

Additional Resources: BERTScore: Evaluating Text Generations with BERT

<https://arxiv.org/abs/1904.09675>

Rather than relying on exact token-level matches to compute summarization quality, BERTScore computes semantic similarity between a reference text and model response. For this, BERTScore leverages the pre-trained embeddings from the BERT model.

Detailed Findings

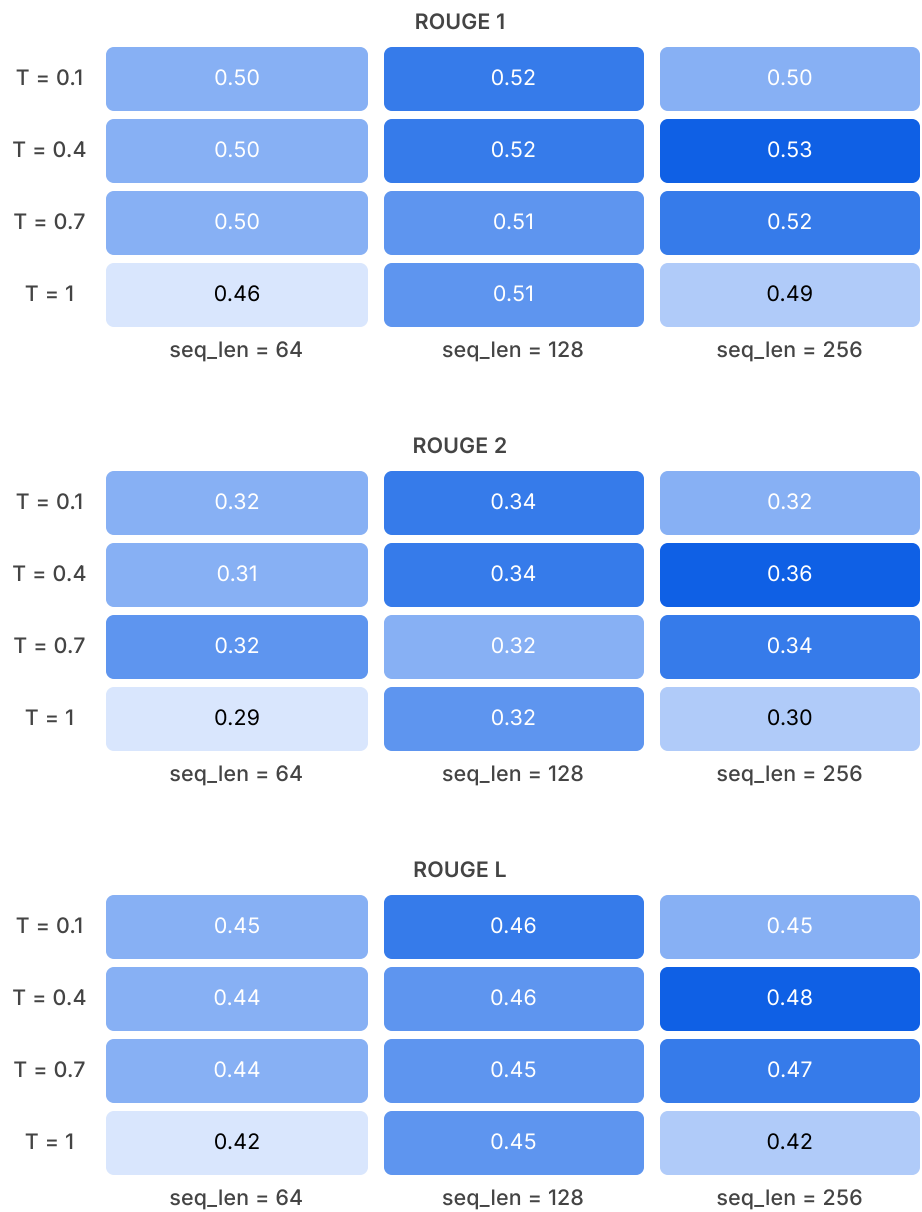
ROUGE

To measure the average performance of openai-gpt-3.5-turbo-summarization, Dynamo AI relies on three ROUGE metrics, displayed below. Each metric ranges between 0 and 1, with 0.5 often being considered an ‘excellent’ score. At a temperature of 0.1, Dynamo AI observed a ROUGE-1 score of 0.50745, a ROUGE-2 score of 0.32688, and a ROUGE-L score of 0.45253.

Meanwhile, at a temperature of 1, Dynamo AI observed a ROUGE-1 score of 0.48621, a ROUGE-2 score of 0.3049, and a ROUGE-L score of 0.43111. The chart below displays the ROUGE metrics for each temperature evaluated.

Figure 1: ROUGE scores by temperature and sequence length

Model temperature controls the relative randomness of outputs, depending on your use case this may cause changes in average ROUGE scores.



To provide deeper insight into model performance, Dynamo AI also measured the individual ROUGE score for each reference text and model generation, and conducted further analysis to determine the best and worst performing topics for openai-gpt-3.5-turbo-summarization. Dynamo AI observed that openai-gpt-3.5-turbo-summarization performed best on the following topics:
news article about crime and accidents

The chart below displays the ROUGE metrics by category.

Figure 2: Average ROUGE-1 scores by temperature, sequence length, and category

Here we see ROUGE-1 score by **Performance Test Report** category, representing model performance on different topics

news article about sports			
T = 0.1	0.38	0.37	0.40
T = 0.4	0.38	0.46	0.36
T = 0.7	0.39	0.40	0.41
T = 1	0.43	0.38	0.41
	seq_len = 64	seq_len = 128	seq_len = 256

news article about government and politics			
T = 0.1	0.41	0.44	0.50
T = 0.4	0.41	0.50	0.62
T = 0.7	0.42	0.50	0.59
T = 1	0.40	0.51	0.43
	seq_len = 64	seq_len = 128	seq_len = 256

news article about crime and accidents			
T = 0.1	0.68	0.58	0.58
T = 0.4	0.62	0.61	0.57
T = 0.7	0.61	0.54	0.50
T = 1	0.47	0.59	0.48
	seq_len = 64	seq_len = 128	seq_len = 256

news article about economy			
T = 0.1	0.43	0.52	0.51
T = 0.4	0.44	0.48	0.52
T = 0.7	0.49	0.46	0.46
T = 1	0.38	0.51	0.40
	seq_len = 64	seq_len = 128	seq_len = 256

others (undefined)			
T = 0.1	0.48	0.53	0.50
T = 0.4	0.49	0.51	0.54

T = 0.7	0.49	0.52	0.54
T = 1	0.48	0.51	0.51
	seq_len = 64	seq_len = 128	seq_len = 256

Figure 3: Average ROUGE-2 scores by temperature, sequence length, and category

Here we see ROUGE-2 score by **Performance Test Report** category, representing model performance on different topics

	news article about sports		
T = 0.1	0.22	0.22	0.24
T = 0.4	0.23	0.30	0.21
T = 0.7	0.19	0.24	0.25
T = 1	0.28	0.20	0.22
	seq_len = 64	seq_len = 128	seq_len = 256

	news article about government and politics		
T = 0.1	0.29	0.32	0.34
T = 0.4	0.25	0.38	0.46
T = 0.7	0.29	0.32	0.47
T = 1	0.14	0.37	0.24
	seq_len = 64	seq_len = 128	seq_len = 256

	news article about crime and accidents		
T = 0.1	0.52	0.43	0.41
T = 0.4	0.45	0.44	0.40
T = 0.7	0.45	0.36	0.32
T = 1	0.29	0.43	0.32
	seq_len = 64	seq_len = 128	seq_len = 256

	news article about economy		
T = 0.1	0.28	0.34	0.33
T = 0.4	0.26	0.29	0.35
T = 0.7	0.34	0.25	0.25
T = 1	0.19	0.30	0.23
	seq_len = 64	seq_len = 128	seq_len = 256

	others (undefined)		
T = 0.1	0.29	0.34	0.31
T = 0.4	0.30	0.33	0.37

T = 0.7	0.31	0.33	0.36
T = 1	0.31	0.32	0.32
	seq_len = 64	seq_len = 128	seq_len = 256

Figure 4: Average ROUGE-L scores by temperature, sequence length, and category

Here we see ROUGE-L score by **Performance Test Report** category, representing model performance on different topics

news article about sports			
T = 0.1	0.35	0.33	0.35
T = 0.4	0.36	0.40	0.33
T = 0.7	0.35	0.35	0.38
T = 1	0.40	0.30	0.36
	seq_len = 64	seq_len = 128	seq_len = 256

news article about government and politics			
T = 0.1	0.38	0.41	0.47
T = 0.4	0.36	0.49	0.59
T = 0.7	0.39	0.48	0.57
T = 1	0.32	0.49	0.39
	seq_len = 64	seq_len = 128	seq_len = 256

news article about crime and accidents			
T = 0.1	0.65	0.54	0.52
T = 0.4	0.58	0.56	0.51
T = 0.7	0.56	0.48	0.45
T = 1	0.43	0.56	0.44
	seq_len = 64	seq_len = 128	seq_len = 256

news article about economy			
T = 0.1	0.38	0.47	0.46
T = 0.4	0.39	0.40	0.47
T = 0.7	0.43	0.39	0.37
T = 1	0.33	0.42	0.33
	seq_len = 64	seq_len = 128	seq_len = 256

others (undefined)			
T = 0.1	0.42	0.47	0.44
T = 0.4	0.43	0.45	0.49

T = 0.7	0.43	0.46	0.49
T = 1	0.44	0.44	0.44
	seq_len = 64	seq_len = 128	seq_len = 256

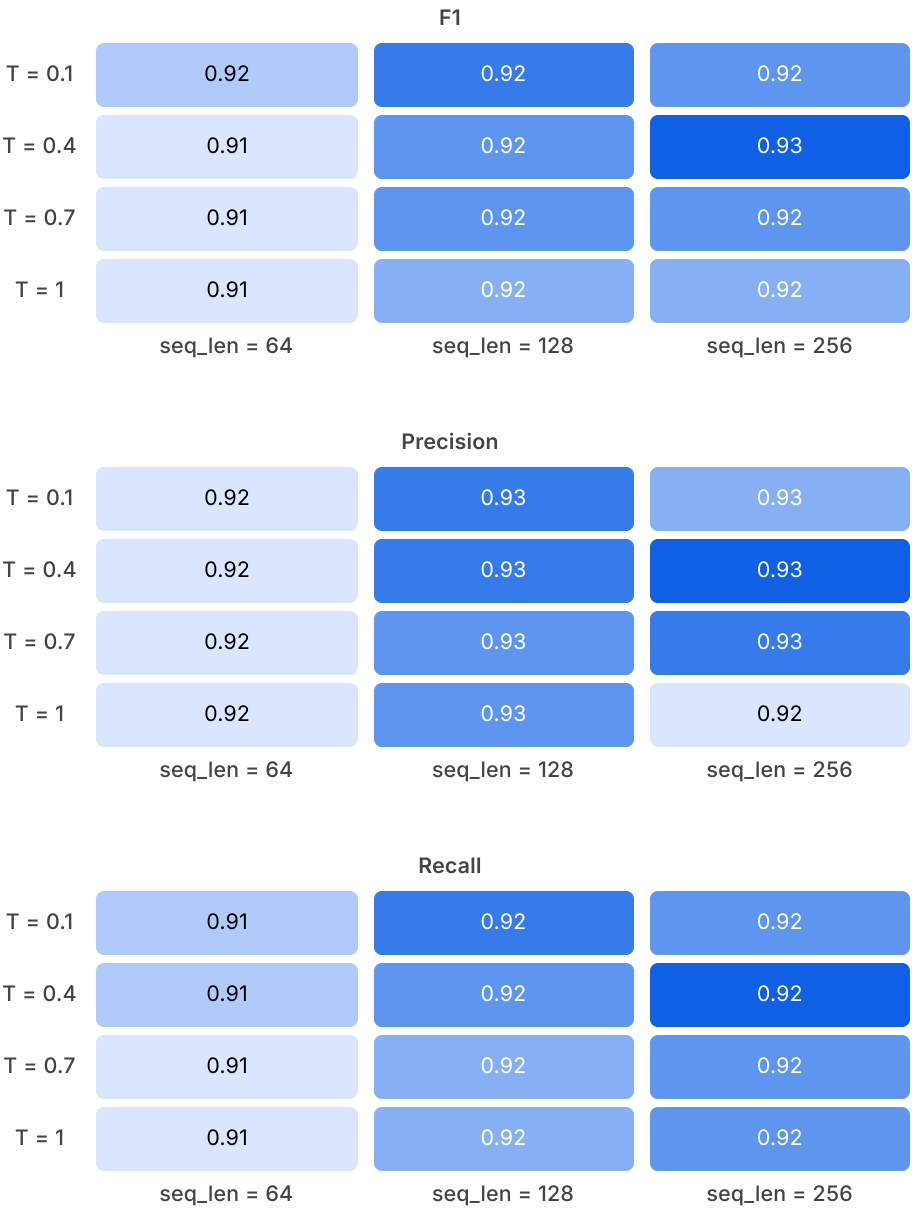
BERTScore

In addition to ROUGE, Dynamo AI evaluated BERTScore, which is best represented by precision, recall, and F1 score. Here, precision measures the average cosine similarity for each token in the generated output to the reference text, while recall measures the average cosine similarity for each token in the reference text to the generated output. F1 score is a common evaluation metric which combines precision and recall using harmonic mean – a high F1 score represents maximizing both precision and recall. Each metric ranges between 0 and 1.

At a temperature of 0.1, Dynamo AI observed a BERTScore precision of 0.92744, a recall of 0.91886, and an F1 score of 0.92084. Meanwhile, at a temperature of 1, Dynamo AI observed a BERTScore precision of 0.92394, a recall of 0.91488, and an F1 score of 0.91652. The chart below shows BERTScore precision, recall, and F1 at all temperatures tested.

Figure 5: F1, Precision, Recall scores by model temperature and sequence length

Model temperature controls the relative randomness of outputs, depending on your use case this may cause changes in the observed precision and recall values.

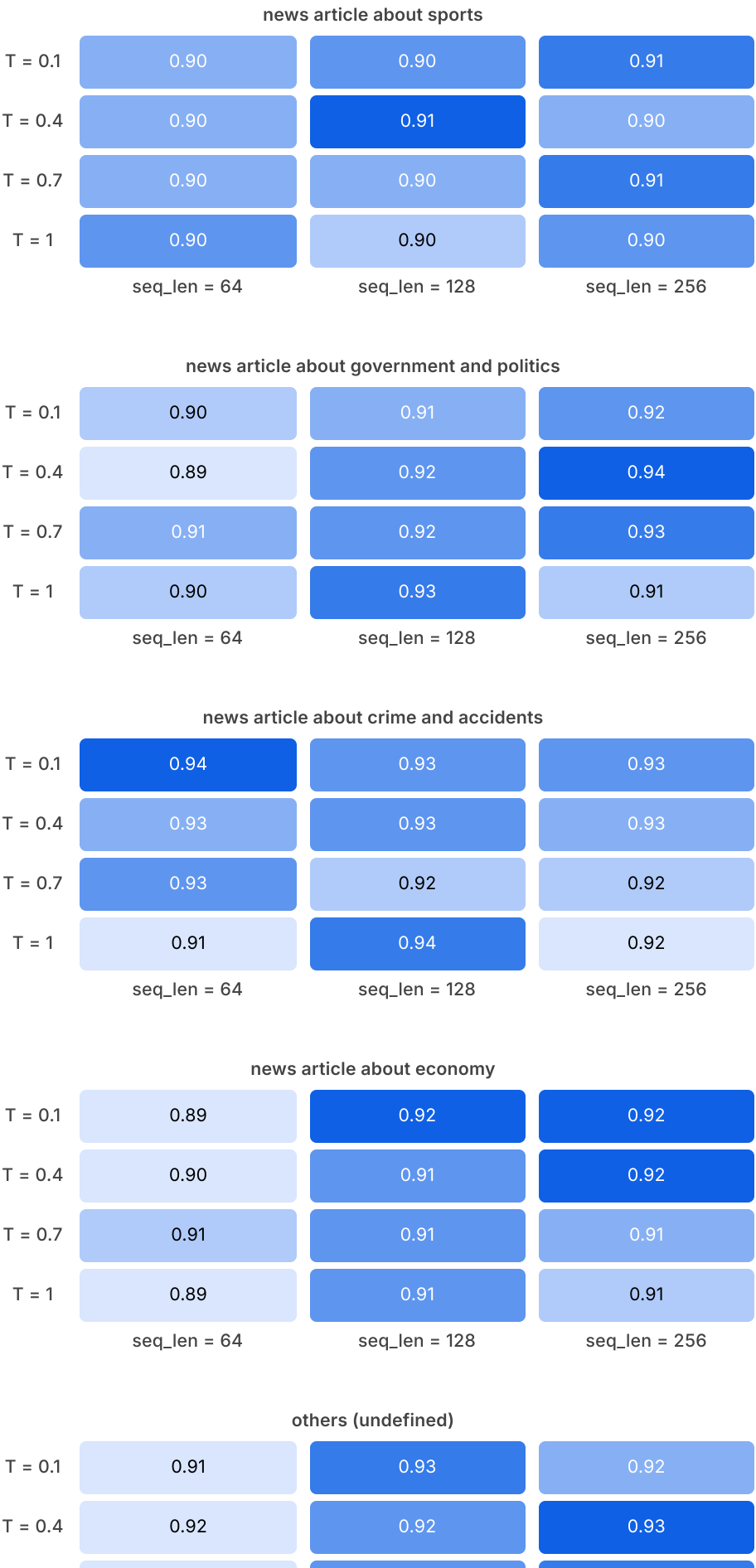


To provide deeper insight into model performance, Dynamo AI also measured the individual BERTScore for each reference text and model generation, and conducted further analysis to determine the best and worst performing topics for openai-gpt-3.5-turbo-summarization. Dynamo AI observed that openai-gpt-3.5-turbo-summarization performed best on the following topics:
news article about crime and accidents

The chart below displays the BERTScore metrics by category.

Figure 6: F1 scores by model temperature and category

Here we see BERTScore F1 values by **Performance Test Report** category, representing model performance on different topics



T = 0.7	0.91	0.92	0.93
T = 1	0.91	0.92	0.92
	seq_len = 64	seq_len = 128	seq_len = 256

Usage Considerations

Limitations of Automatic Quantitative Performance Evaluations

While quantitative performance metrics for language models can provide a great starting point for evaluation, it is important to consider the specific requirements of the model's usage and the limitations of each metric. Metrics such as ROUGE and BERTScore can have limitations in capturing qualities such as output fluency, coherence, correctness, and relevance.

Performance metric scores being very high (i.e., close to 1, or max value) also does not necessarily mean the model response is high-quality. For instance, ROUGE or BERTScore of 1 means the model response is identical to the reference text, which does not guarantee its general quality. It is important to augment the quantitative performance results presented on this report with the users' qualitative assessments when evaluating the models.

About Dynamo AI

Dynamo AI is the world's leading enterprise solution for privacy-preserving Generative AI. At Dynamo AI we believe that prioritizing privacy, compliance, and data security from day 1 while building Generative AI applications is the only way to responsibly scale AI and use it to augment human potential beyond what was thought possible. Our proprietary technology encapsulates state-of-the-art optimization techniques for training and deploying Generative AI models along with a robust privacy training and evaluation suite incorporating paradigms like Federated Learning and Differential privacy to bring high-performing end-to-end plug-and-play Generative AI to global enterprises.

Disclaimer and Terms of Service

The metrics and recommendations presented within this report are intended solely for informational purposes and should not be construed as legal advice. While we have undertaken diligent efforts to ensure the accuracy and reliability of the data and analyses contained herein, they are subject to inherent limitations and may not encompass all potential vulnerabilities or scenarios.

The tests performed and their resulting issues are only from the point of view of Dynamo AI. The risks of developing, deploying, implementing, managing and/or deprecating an AI model are specific to your organization and the circumstances in which you intend to deploy and use that model, and you should not rely on this report in isolation to reach a decision on such risks.

Any actions taken based on the information provided in this report are at your own discretion and risk. We disclaim any liability for or in connection with the consequences of any decisions or actions taken by your organization in reliance upon the information presented in this report.

Appendix 1: Benchmarking Examples

Here Dynamo AI provides reference examples from the evaluation to exemplify various metric scores.

Exhibit 1: Example Reference text & model output pairs for benchmarking

Examples from the evaluation dataset with model outputs are displayed to exemplify metric scoring.

Reference: The first of six boxes was unveiled on Tottenham Court Road this week. The service is free to use although users will be shown adverts as they wait for their phone to charge. Many of the UK's red telephone boxes have largely fallen into disuse although some are being revived as libraries or being fitted with medical equipment. The boxes have had a makeover for the project - painted green and fitted with a roof-mounted 86cm solar panel. Inside there are a variety of charging stations for different models of phone and a screen which shows adverts. The advertising screen is reinforced to deter vandals and the boxes are maintained daily and locked overnight. The project was the brainchild of two geography students turned entrepreneurs Harold Craston and Kirsty Kenny. Both studied at the London School of Economics (LSE) and were interested in finding new ways to use public spaces. "I lived next to a phone box in my second year at uni and walked past it every day. I thought, 'There are 8,000 of these lying unused in London and we must be able to find a use for them,'" explained Mr Craston. The solarbox can charge up to 100 phones a day, offering a 20% battery boost in 10 minutes. Since launch, about six people per hour use the booth, according to the founder. Running out of battery is a perennial problem for smartphone users as they become ever more powerful without an equivalent technology leap in battery life. "On launch day, my phone ran out of battery and I genuinely had to use the box," said Mr Craston. Solarbox won second place in the Mayor of London's Low Carbon Entrepreneur of the Year Award earlier this year and also won the LSE's Emerging Entrepreneur of the Year award. Five more boxes will be rolled out by April 2015. Funded by advertising, the founders are keen to make sure users are engaged by "short, fun and exciting ads showing exclusive content". Firms signed up include Tinder and Uber, and 30% of advertising space is reserved for community projects.

Generated Output: Two geography students turned entrepreneurs have launched a project to repurpose unused red telephone boxes in London as free phone charging stations. The boxes have been painted green, fitted with solar panels, and equipped with charging stations for different phone models. The project, called Solarbox, has been successful since its launch, with plans to roll

ROUGE-1: 0.37144, **ROUGE-2:** 0.16996, **ROUGE-L:** 0.2959, **F1:** 0.8869

Reference: Sarah Johnson was one of 21 women heading to Liverpool when their minibus was hit by a lorry on the M62. Her friend Bethany Jones, 18, was killed while Ms Johnson and several others were badly hurt. Minibus driver James Johnson was jailed for more than six years for causing Bethany's death, in April 2013. Ms Johnson, who broke her shoulder, back and pelvis, said the help she received from a charity while in hospital led her to want to support others. Speaking publicly for the first time about the crash, Ms Johnson described how everyone was "excited and giddy" for the hen party. "To me the impact was just a massive explosion," she said. "I thought the bus had blown up. "I remember the bus dropping on its side. The next thing, I woke up on the roadside so I'd actually come out of the window." Ms Johnson was taken to Leeds General Infirmary where she, along with Bethany's sister Amy Firth, underwent major surgery and spent time in intensive care. Whilst she was there she got support from charity Day One, which helps victims of major trauma. She said: "It's absolutely fantastic. "It supports people by giving benefit advice, legal advice and peer support such as me and Amy, who have been in similar situations and who are now helping other people who've suffered

from major trauma." Ms Johnson said the crash had made her realise how lucky she had been. "Beth can't complain, she's not here," she added. "We just have to be grateful for what we've got."

Generated Output: Sarah Johnson was involved in a tragic accident on the M62 in which her friend Bethany Jones was killed and she was badly injured. The minibus driver was jailed for causing Bethany's death. Sarah received support from a charity while in hospital, which inspired her to want to help others. She described the crash as

ROUGE-1: 0.50571, **ROUGE-2:** 0.30691, **ROUGE-L:** 0.44417, **F1:** 0.91288

Reference: Surman, 28, arrives back at Dean Court having previously spent two spells on loan at the Championship club. He spent last season with Bournemouth, making 39 appearances, and was also at the Cherries during the 2005-06 season. The former England Under-21 international started his career at Southampton before joining Wolverhampton Wanderers in 2009. Surman joined Norwich in 2010 and made 58 appearances for the Canaries.

Generated Output: Surman, 28, has returned to Dean Court after two loan spells at the Championship club. He spent last season at Bournemouth, making 39 appearances, and was also there in the 2005-06 season. He started his career at Southampton, then joined Wolverhampton Wanderers in 2009

ROUGE-1: 0.70982, **ROUGE-2:** 0.50259, **ROUGE-L:** 0.67207, **F1:** 0.97104

Reference: Surman, 28, arrives back at Dean Court having previously spent two spells on loan at the Championship club. He spent last season with Bournemouth, making 39 appearances, and was also at the Cherries during the 2005-06 season. The former England Under-21 international started his career at Southampton before joining Wolverhampton Wanderers in 2009. Surman joined Norwich in 2010 and made 58 appearances for the Canaries.

Generated Output: Surman, a 28-year-old former England Under-21 international, has returned to Bournemouth after spending two loan spells at the club. He previously played for Southampton, Wolverhampton Wanderers, and Norwich before joining Bournemouth for the 2017-2018 season, during which he made 39 appearances.

ROUGE-1: 0.38605, **ROUGE-2:** 0.16074, **ROUGE-L:** 0.26802, **F1:** 0.91482

Reference: The 33-year-old former Scotland Under-21 cap, who arrived from Yeovil Town in 2012, has signed until May 2017, with a further one-year option. MacLean has scored 11 goals in 23 games for the Premiership outfit this season. He started out with Ranges and also spells with Scunthorpe United, Sheffield Wednesday, Cardiff City, Plymouth Argyle, Aberdeen, Oxford United and Cheltenham Town. Meanwhile, St Johnstone have sent two youth players on loan for the rest of the season, with defender Neil Martyniuk joining Montrose in League Two and striker Greg Kerr spending time with Whitehill Welfare in the Lowland League.

Generated Output: A 33-year-old player has signed a contract extension with his current team until May 2017, with a one-year option. He has scored 11 goals in 23 games this season and has had previous spells with multiple other teams. Additionally, two youth players from St Johnstone have been sent on loan. Defender Neil Martyniuk will play for

Montrose and striker Greg Kerr will join Whitehill Welfare for the rest of the season.

ROUGE-1: 0.49461, **ROUGE-2:** 0.35722, **ROUGE-L:** 0.42224, **F1:** 0.91864

Reference: A total of 1,400 tickets have sold out for the opening weekend at Bramall Hall in Stockport, Greater Manchester after renovation work began in 2014. Stained glass windows and ceilings have been restored, while the public will be able to visit the dining room and butler's pantry for the first time. Councillor Kate Butler, from Stockport Council, called it the "jewel in the crown" of the town's heritage. The manor dates back to the reign of William the Conqueror when he bestowed the lands upon one of his followers, Hamon de Masci, who became the first Baron of Dunham Massey. Since then the estate has been under the ownership of just three families: the Davenports, De Bromales and Nevills. In 1936, the timber-framed hall and its surrounding parkland was handed over to the local council. The transformation followed a £1.6m grant from the Heritage Lottery Fund and £400,000 in council funding.

Generated Output: Bramall Hall in Stockport, Greater Manchester has sold out 1,400 tickets for its opening weekend after renovation work began in 2014. The manor, dating back to the reign of William the Conqueror, has had stained glass windows and ceilings restored, allowing visitors to see the dining room and butler's pantry for the first time. Councillor Kate Butler called it the "jewel in the crown" of the town's heritage. The estate has been owned by just three families and was handed over to the local council in 1936. The renovation was made possible by a £1.6

ROUGE-1: 0.64101, **ROUGE-2:** 0.48275, **ROUGE-L:** 0.5443, **F1:** 0.92729

Reference: But that requires a very patient man or woman to select the most important periods of play. Now scientists in Spain are trying to make that work easier by getting a computer to do it. The technology is being designed to automatically edit a whole game down to the key moments. The people behind it at the Polytechnic University of Catalonia have been working on it for a few years and have just published 18 pages of exactly how it works. Arnau Raventos is the lead professor on the project. He tells Newsbeat they have "been working with the local television companies in Spain in order to try to make the job easier for the person who manually does the summaries currently." Without having to read the full report (we did that for you) - in short - it analyses what are known as key-frames. So, every part of the match is looked over by the computer to spot tell-tale signs of when something interesting is happening. That might be lots of players grouped together, lots of zoomed-in action, extra noise from the crowd or the sound of the referee's whistle. Arnau calls them "occasions". "We want to find specific combinations of moments in a football match. A goal is an occasion." We thought of an example: if a defender goes down in the penalty box, everyone groups around them, you'll hear a whistle, there's lots of faces in the shot and a penalty happens. In theory, the technology should capture that. There is a long way to go though. The technology could frustrate even the most lukewarm of football fans because it hasn't quite nailed exactly the magic moment - when the goal goes in. In a test on five matches, the technology detected 70 per cent of the total goals. "We need to be sincere," says Arnau. "We need to say that at the moment it's not possible to perform a complete automatic summary just yet. It's difficult to detect all the goals." "However, we think it's very easy to discard those moments that are not important. For example, the panoramic views. They are easy to detect and to discard them so that already makes the job of the editor easier." Follow @BBCNewsbeat on Twitter and Radio1Newsbeat on YouTube

Generated Output: Scientists in Spain are developing technology that uses a computer to automatically edit football games down to the key moments. The technology analyzes key-frames to identify important events like goals. While it has shown promising results in

detecting significant moments, such as 70% of goals in a test, it still has room for improvement. The

ROUGE-1: 0.37617, **ROUGE-2:** 0.1458, **ROUGE-L:** 0.31389, **F1:** 0.89407

Reference: Her best-known films include 1938's *Quai des Brumes* (Port of Shadows), in which she starred alongside Jean Gabin. She also appeared in Carol Reed's *The Fallen Idol* and opposite Humphrey Bogart in *Passage to Marseille*. In a statement, French president Francois Hollande said she "personified elegance and grace". He said: "Michele Morgan was more than just a gaze. Her legend left its mark on many generations." Morgan's Cannes award came in 1946 for her role as a blind woman in *La Symphonie Pastorale* (Pastoral Symphony). In later life, she received lifetime achievement accolades at the Venice Film Festival and the Cesar Awards, as well as a star on the Hollywood Walk of Fame. Morgan was considered for the role of Ilsa Lund in *Casablanca*, but lost out to Ingrid Bergman when film studio RKO refused to loan her to Warner Bros. Her film career faded with the arrival of the French New Wave in the 1960s, although she continued to work in television and on stage. Follow us on Facebook, on Twitter @BBCNewsEnts, or on Instagram at bbcnewsents. If you have a story suggestion email entertainment.news@bbc.co.uk.

Generated Output: Michele Morgan was a French actress known for her roles in classic films such as *Quai des Brumes* and *Passage to Marseille*. French president Francois Hollande praised her elegance and grace, stating that she left a lasting impact on multiple generations. Morgan won the Cannes award in 1946 for her role in *La Symphonie*

ROUGE-1: 0.50063, **ROUGE-2:** 0.28459, **ROUGE-L:** 0.43119, **F1:** 0.90886

Reference: Surman, 28, arrives back at Dean Court having previously spent two spells on loan at the Championship club. He spent last season with Bournemouth, making 39 appearances, and was also at the Cherries during the 2005-06 season. The former England Under-21 international started his career at Southampton before joining Wolverhampton Wanderers in 2009. Surman joined Norwich in 2010 and made 58 appearances for the Canaries.

Generated Output: Surman, 28, has returned to Dean Court after spending two loan spells at the Championship club. He previously played for Bournemouth during the 2005-06 season and last season, making 39 appearances. Surman started his career at Southampton and also played for Wolverhampton Wanderers before joining Norwich in

ROUGE-1: 0.65845, **ROUGE-2:** 0.37045, **ROUGE-L:** 0.48732, **F1:** 0.94961

Reference: Allsop, 25, made his Premier League debut in November 2015 and has spent time on loan at Coventry and Wycombe. Cooke, 20, won the European Championship with England Under-17s in 2014 and scored four goals while on loan at Crewe last season. League One Blackpool have now signed nine players this summer. Find all the latest football transfers on our dedicated page.

Generated Output: Allsop, 25, and Cooke, 20, have both had successful loan spells and have now been signed by League One Blackpool. The club has made a total of nine signings this summer. For more football transfer news, visit their dedicated page.

ROUGE-1: 0.33383, **ROUGE-2:** 0.14573, **ROUGE-L:** 0.28383, **F1:** 0.92562

Reference: Northern Ireland's world number three is due to tee off with Americans Dustin Johnson and Rickie Fowler at 02:45 GMT (10:45 local time) on Thursday. The 26-year-old currently leads the Race to Dubai rankings with just three tournaments remaining. "I'm not feeling great. I ate something a couple of nights ago and Tuesday wasn't good at all," he said. "I thought I would be better Wednesday morning, but I had a piece of toast and a couple of bits of melon for breakfast and I came here and tried to hit some balls, but even just making a couple of swings my stomach was too sore. "I just need another day of rest and hopefully I will be better tomorrow and I can play." Four-time major winner McIlroy is the only two-time winner of the Race to Dubai - the European Tour's season-long event - having claimed titles in 2012 and 2014. He currently leads England's Danny Willett, Irishman Shane Lowry and South African Louis Oosthuizen.

Generated Output: Northern Ireland's world number three golfer is set to play with Dustin Johnson and Rickie Fowler at the upcoming tournament, but is feeling unwell and may not be able to compete. Despite leading the Race to Dubai rankings, he is hoping for a day of rest to recover and be able to play in the tournament. McIlroy is a four-time major winner and the only two-time winner of the Race to Dubai.

ROUGE-1: 0.51187, **ROUGE-2:** 0.37172, **ROUGE-L:** 0.45413, **F1:** 0.90702

Reference: A total of 1,400 tickets have sold out for the opening weekend at Bramall Hall in Stockport, Greater Manchester after renovation work began in 2014. Stained glass windows and ceilings have been restored, while the public will be able to visit the dining room and butler's pantry for the first time. Councillor Kate Butler, from Stockport Council, called it the "jewel in the crown" of the town's heritage. The manor dates back to the reign of William the Conqueror when he bestowed the lands upon one of his followers, Hamon de Masci, who became the first Baron of Dunham Massey. Since then the estate has been under the ownership of just three families: the Davenports, De Bromales and Nevills. In 1936, the timber-framed hall and its surrounding parkland was handed over to the local council. The transformation followed a £1.6m grant from the Heritage Lottery Fund and £400,000 in council funding.

Generated Output: Bramall Hall in Stockport, Greater Manchester has sold out 1,400 tickets for its opening weekend after renovation work that began in 2014. The manor, dating back to the reign of William the Conqueror, has had stained glass windows and ceilings restored, and the public will now be able to visit the dining room and butler's pantry for the first time. Councillor Kate Butler of Stockport Council has praised the renovation, calling it the "jewel in the crown" of the town's heritage. The estate has been owned by just three families since its inception, and in 1936

ROUGE-1: 0.71825, **ROUGE-2:** 0.54373, **ROUGE-L:** 0.62191, **F1:** 0.93699

Reference: But that requires a very patient man or woman to select the most important periods of play. Now scientists in Spain are trying to make that work easier by getting a computer to do it. The technology is being designed to automatically edit a whole game down to the key moments. The people behind it at the Polytechnic University of Catalonia have been working on it for a few years and have just published 18 pages of exactly how it works. Arnau Raventos is the lead professor on the project. He tells Newsbeat they have "been working with the local television companies in Spain in order to try to make the job easier for the person who manually does the summaries currently." Without having to read the full report (we did that for you) - in short - it analyses what are known as key-frames. So, every part of the match is looked over by the computer to spot tell-tale signs of when something interesting is happening. That might be lots of players grouped together, lots of zoomed-in action, extra noise from the crowd or the sound of the referee's whistle. Arnau calls them "occasions". "We want to find specific

combinations of moments in a football match. A goal is an occasion." We thought of an example: if a defender goes down in the penalty box, everyone groups around them, you'll hear a whistle, there's lots of faces in the shot and a penalty happens. In theory, the technology should capture that. There is a long way to go though. The technology could frustrate even the most lukewarm of football fans because it hasn't quite nailed exactly the magic moment - when the goal goes in. In a test on five matches, the technology detected 70 per cent of the total goals. "We need to be sincere," says Arnau. "We need to say that at the moment it's not possible to perform a complete automatic summary just yet. It's difficult to detect all the goals." "However, we think it's very easy to discard those moments that are not important. For example, the panoramic views. They are easy to detect and to discard them so that already makes the job of the editor easier." Follow @BBCNewsbeat on Twitter and Radio1Newsbeat on YouTube

Generated Output: Scientists in Spain are developing technology to automatically edit football games down to key moments, making it easier for editors to create summaries. The technology analyzes key-frames to identify important moments such as goals. While it has not yet perfected capturing all goals, it can easily discard unimportant moments like panoramic views. The technology is still in development but shows promise in simplifying the editing process for television companies.

ROUGE-1: 0.32388, **ROUGE-2:** 0.13953, **ROUGE-L:** 0.29229, **F1:** 0.90415

Reference: Surman, 28, arrives back at Dean Court having previously spent two spells on loan at the Championship club. He spent last season with Bournemouth, making 39 appearances, and was also at the Cherries during the 2005-06 season. The former England Under-21 international started his career at Southampton before joining Wolverhampton Wanderers in 2009. Surman joined Norwich in 2010 and made 58 appearances for the Canaries.

Generated Output: Surman, 28, has returned to Bournemouth after two loan spells at the Championship club. He made 39 appearances for Bournemouth last season and was also with the team in 2005-06. Surman began his career at Southampton, then joined Wolverhampton Wanderers in 2009 before moving to Norwich in 2010, where he made 58 appearances.

ROUGE-1: 0.57412, **ROUGE-2:** 0.28939, **ROUGE-L:** 0.48121, **F1:** 0.94707

Reference: The 33-year-old former Scotland Under-21 cap, who arrived from Yeovil Town in 2012, has signed until May 2017, with a further one-year option. MacLean has scored 11 goals in 23 games for the Premiership outfit this season. He started out with Ranges and also spells with Scunthorpe United, Sheffield Wednesday, Cardiff City, Plymouth Argyle, Aberdeen, Oxford United and Cheltenham Town. Meanwhile, St Johnstone have sent two youth players on loan for the rest of the season, with defender Neil Martyniuk joining Montrose in League Two and striker Greg Kerr spending time with Whitehill Welfare in the Lowland League.

Generated Output: A 33-year-old former Scotland Under-21 player has signed a contract with St Johnstone until May 2017, with a one-year option. He has scored 11 goals in 23 games this season. The player has previously played for various clubs including Rangers, Scunthorpe United, Sheffield Wednesday, Cardiff City, Plymouth Argyle, Aberdeen, Oxford United, and Cheltenham Town. Additionally, St Johnstone have sent two youth players on loan for the rest of the season.

ROUGE-1: 0.64199, **ROUGE-2:** 0.5708, **ROUGE-L:** 0.64199, **F1:** 0.94405

Reference: But that requires a very patient man or woman to select the most important periods of play. Now scientists in Spain are trying to make that work easier by getting a computer to do it. The technology is being designed to automatically edit a whole game down to the key moments. The people behind it at the Polytechnic University of Catalonia have been working on it for a few years and have just published 18 pages of exactly how it works. Arnau Raventos is the lead professor on the project. He tells Newsbeat they have "been working with the local television companies in Spain in order to try to make the job easier for the person who manually does the summaries currently." Without having to read the full report (we did that for you) - in short - it analyses what are known as key-frames. So, every part of the match is looked over by the computer to spot tell-tale signs of when something interesting is happening. That might be lots of players grouped together, lots of zoomed-in action, extra noise from the crowd or the sound of the referee's whistle. Arnau calls them "occasions". "We want to find specific combinations of moments in a football match. A goal is an occasion." We thought of an example: if a defender goes down in the penalty box, everyone groups around them, you'll hear a whistle, there's lots of faces in the shot and a penalty happens. In theory, the technology should capture that. There is a long way to go though. The technology could frustrate even the most lukewarm of football fans because it hasn't quite nailed exactly the magic moment - when the goal goes in. In a test on five matches, the technology detected 70 per cent of the total goals. "We need to be sincere," says Arnau. "We need to say that at the moment it's not possible to perform a complete automatic summary just yet. It's difficult to detect all the goals." "However, we think it's very easy to discard those moments that are not important. For example, the panoramic views. They are easy to detect and to discard them so that already makes the job of the editor easier." Follow @BBCNewsbeat on Twitter and Radio1Newsbeat on YouTube

Generated Output: Scientists in Spain are developing technology to automatically edit key moments from football matches, making it easier for editors to create summaries. The technology analyzes key-frames to identify important occurrences, such as goals, using factors like player grouping and crowd noise. While the technology is not yet perfect, detecting 70% of goals in tests, it can still help streamline the editing process by removing less important footage.

ROUGE-1: 0.32381, **ROUGE-2:** 0.11556, **ROUGE-L:** 0.25159, **F1:** 0.89933

Reference: Northern Ireland's world number three is due to tee off with Americans Dustin Johnson and Rickie Fowler at 02:45 GMT (10:45 local time) on Thursday. The 26-year-old currently leads the Race to Dubai rankings with just three tournaments remaining. "I'm not feeling great. I ate something a couple of nights ago and Tuesday wasn't good at all," he said. "I thought I would be better Wednesday morning, but I had a piece of toast and a couple of bits of melon for breakfast and I came here and tried to hit some balls, but even just making a couple of swings my stomach was too sore. "I just need another day of rest and hopefully I will be better tomorrow and I can play." Four-time major winner McIlroy is the only two-time winner of the Race to Dubai - the European Tour's season-long event - having claimed titles in 2012 and 2014. He currently leads England's Danny Willett, Irishman Shane Lowry and South African Louis Oosthuizen.

Generated Output: Northern Ireland's world number three golfer is scheduled to play with Dustin Johnson and Rickie Fowler on Thursday, but he is not feeling well due to a stomach illness. Rory McIlroy currently leads the Race to Dubai rankings and hopes to recover in time to compete in the tournament. He has won the Race to Dubai twice before and is ahead of competitors Danny Willett, Shane Lowry, and Louis Oosthuizen.

ROUGE-1: 0.4917, **ROUGE-2:** 0.32703, **ROUGE-L:** 0.46169, **F1:** 0.90643

Reference: Parts of the Mariana Trench in the Pacific Ocean are up to 11 kilometres deep, so we know little about what sea life there is. So a team has been sending down a robotic submarine called Deep Discoverer with a camera on it. Science fans or anyone who is just curious can check out what the camera is showing online. The three-month expedition is looking for things like fish, mud volcanoes and deep sea coral. So far they've spotted shrimp, jellyfish and black pillow lava from an underwater eruption.

Generated Output: A team is exploring parts of the Mariana Trench using a robotic submarine called Deep Discoverer with a camera attached. The expedition aims to discover sea life such as fish, mud volcanoes, and deep sea coral. Some discoveries so far include shrimp, jellyfish, and black pillow lava from an underwater eruption. Interested individuals can view the live footage online.

ROUGE-1: 0.54536, **ROUGE-2:** 0.40357, **ROUGE-L:** 0.54536, **F1:** 0.93667

Reference: The first of six boxes was unveiled on Tottenham Court Road this week. The service is free to use although users will be shown adverts as they wait for their phone to charge. Many of the UK's red telephone boxes have largely fallen into disuse although some are being revived as libraries or being fitted with medical equipment. The boxes have had a makeover for the project - painted green and fitted with a roof-mounted 86cm solar panel. Inside there are a variety of charging stations for different models of phone and a screen which shows adverts. The advertising screen is reinforced to deter vandals and the boxes are maintained daily and locked overnight. The project was the brainchild of two geography students turned entrepreneurs Harold Craston and Kirsty Kenny. Both studied at the London School of Economics (LSE) and were interested in finding new ways to use public spaces. "I lived next to a phone box in my second year at uni and walked past it every day. I thought, 'There are 8,000 of these lying unused in London and we must be able to find a use for them,'" explained Mr Craston. The solarbox can charge up to 100 phones a day, offering a 20% battery boost in 10 minutes. Since launch, about six people per hour use the booth, according to the founder. Running out of battery is a perennial problem for smartphone users as they become ever more powerful without an equivalent technology leap in battery life. "On launch day, my phone ran out of battery and I genuinely had to use the box," said Mr Craston. Solarbox won second place in the Mayor of London's Low Carbon Entrepreneur of the Year Award earlier this year and also won the LSE's Emerging Entrepreneur of the Year award. Five more boxes will be rolled out by April 2015. Funded by advertising, the founders are keen to make sure users are engaged by "short, fun and exciting ads showing exclusive content". Firms signed up include Tinder and Uber, and 30% of advertising space is reserved for community projects.

Generated Output: Two geography students turned entrepreneurs have launched a project to repurpose unused red telephone boxes in London as solar-powered phone charging stations. The boxes have been painted green, fitted with solar panels, and equipped with charging stations for different phone models. The project, called Solarbox, has been successful since its launch, with plans to

ROUGE-1: 0.37227, **ROUGE-2:** 0.16884, **ROUGE-L:** 0.2963, **F1:** 0.88565

Reference: Aiton, 30, had scans to diagnose the injury on Monday. He joined the Dragons from Leeds at the end of 2015, and missed the end of the last campaign with an arm injury. The Papua New Guinea player played 94 games for both Wakefield and Leeds following his move from Cronulla-Sutherland Sharks in 2012.

Generated Output: Aiton, a 30-year-old player for the Dragons, had scans on Monday to diagnose an injury. He joined the team in 2015 and previously played for Wakefield and Leeds. He missed the end of the last season due to an arm injury.

ROUGE-1: 0.56543, **ROUGE-2:** 0.27608, **ROUGE-L:** 0.47231, **F1:** 0.92953

Reference: Surman, 28, arrives back at Dean Court having previously spent two spells on loan at the Championship club. He spent last season with Bournemouth, making 39 appearances, and was also at the Cherries during the 2005-06 season. The former England Under-21 international started his career at Southampton before joining Wolverhampton Wanderers in 2009. Surman joined Norwich in 2010 and made 58 appearances for the Canaries.

Generated Output: Surman, 28, returns to Dean Court after two loan spells at the Championship club. He played for Bournemouth last season, making 39 appearances, and was also with them in the 2005-06 season. Surman started his career at Southampton, then joined Wolverhampton Wanderers in 200

ROUGE-1: 0.66948, **ROUGE-2:** 0.42142, **ROUGE-L:** 0.61446, **F1:** 0.96381

Reference: President Raul Castro said "attempts to destroy the revolution" would fail. Mr Trump has tightened restrictions on US travel to and business with the communist island. But the US embassy in Havana, re-opened by former President Barack Obama, is still operating. Mr Castro was speaking in front of Cuba's national assembly. It was his first public comment on the policy changes Mr Trump announced a month ago. State-run Cuban media quoted Mr Castro as saying that Mr Trump was using "old and hostile rhetoric" and had returned to "confrontation that roundly failed over 55 years". He said: "We reject the manipulation of the topic of human rights against Cuba, which can be proud of much in this area and does not need to receive lessons from the United States nor anyone." Mr Trump anchored his policy rollback in human rights concerns raised by political opponents of Cuba's communist government, many of whom have fled to Miami where Mr Trump announced the changes on 16 June. Mr Castro continued: "Cuba and the United States can cooperate and live side by side, respecting their differences. But no one should expect that for this, one should have to make concessions inherent to one's sovereignty and independence." Mr Castro will step down as president in seven months, but will remain the head of the country's Communist Party.

Generated Output: President Raul Castro addressed the attempts by the United States to tighten restrictions on Cuba, stating that they would fail. He criticized President Trump's "old and hostile rhetoric" and emphasized that Cuba does not need lessons on human rights from the US. Castro also highlighted the importance of respecting each other's differences while maintaining sovereignty and

ROUGE-1: 0.39735, **ROUGE-2:** 0.14191, **ROUGE-L:** 0.32174, **F1:** 0.8971

Reference: A total of 1,400 tickets have sold out for the opening weekend at Bramall Hall in Stockport, Greater Manchester after renovation work began in 2014. Stained glass windows and ceilings have been restored, while the public will be able to visit the dining room and butler's pantry for the first time. Councillor Kate Butler, from Stockport Council, called it the "jewel in the crown" of the town's heritage. The manor dates back to the reign of William the Conqueror when he bestowed the lands upon one of his followers, Hamon de Masci, who became the first Baron of Dunham Massey. Since then the estate has been under the ownership of just three families: the Davenports, De Bromales and

Nevills. In 1936, the timber-framed hall and its surrounding parkland was handed over to the local council. The transformation followed a £1.6m grant from the Heritage Lottery Fund and £400,000 in council funding.

Generated Output: The historic Bramall Hall in Stockport, Greater Manchester has undergone extensive renovations and will be opening to the public for the first time since 2014. A total of 1,400 tickets have been sold out for the opening weekend, with restored stained glass windows and ceilings, as well as access to the dining room

ROUGE-1: 0.46154, **ROUGE-2:** 0.33, **ROUGE-L:** 0.40944, **F1:** 0.90875

Reference: Aiton, 30, had scans to diagnose the injury on Monday. He joined the Dragons from Leeds at the end of 2015, and missed the end of the last campaign with an arm injury. The Papua New Guinea player played 94 games for both Wakefield and Leeds following his move from Cronulla-Sutherland Sharks in 2012.

Generated Output: Aiton, age 30, had scans on Monday to diagnose an injury. He joined the Dragons in 2015 and missed the end of the last season with an arm injury. Prior to playing for the Dragons, he played 94 games for Wakefield and Leeds after moving from Cronulla-Sutherland Sharks in

ROUGE-1: 0.74743, **ROUGE-2:** 0.50891, **ROUGE-L:** 0.68394, **F1:** 0.96181

Reference: But that requires a very patient man or woman to select the most important periods of play. Now scientists in Spain are trying to make that work easier by getting a computer to do it. The technology is being designed to automatically edit a whole game down to the key moments. The people behind it at the Polytechnic University of Catalonia have been working on it for a few years and have just published 18 pages of exactly how it works. Arnau Raventos is the lead professor on the project. He tells Newsbeat they have "been working with the local television companies in Spain in order to try to make the job easier for the person who manually does the summaries currently." Without having to read the full report (we did that for you) - in short - it analyses what are known as key-frames. So, every part of the match is looked over by the computer to spot tell-tale signs of when something interesting is happening. That might be lots of players grouped together, lots of zoomed-in action, extra noise from the crowd or the sound of the referee's whistle. Arnau calls them "occasions". "We want to find specific combinations of moments in a football match. A goal is an occasion." We thought of an example: if a defender goes down in the penalty box, everyone groups around them, you'll hear a whistle, there's lots of faces in the shot and a penalty happens. In theory, the technology should capture that. There is a long way to go though. The technology could frustrate even the most lukewarm of football fans because it hasn't quite nailed exactly the magic moment - when the goal goes in. In a test on five matches, the technology detected 70 per cent of the total goals. "We need to be sincere," says Arnau. "We need to say that at the moment it's not possible to perform a complete automatic summary just yet. It's difficult to detect all the goals." "However, we think it's very easy to discard those moments that are not important. For example, the panoramic views. They are easy to detect and to discard them so that already makes the job of the editor easier." Follow @BBCNewsbeat on Twitter and Radio1Newsbeat on YouTube

Generated Output: Scientists in Spain are developing technology to automatically edit football matches down to key moments, making it easier for broadcasters to create summaries. The technology analyzes key-frames to identify important moments such as goals. While it has been successful in detecting some key moments, such as 70% of

goals in a test, it is not yet able to create a complete automatic summary. The technology aims to make the job of the editor easier by identifying and discarding unimportant moments.

ROUGE-1: 0.38459, **ROUGE-2:** 0.18891, **ROUGE-L:** 0.34264, **F1:** 0.908

Reference: President Raul Castro said "attempts to destroy the revolution" would fail. Mr Trump has tightened restrictions on US travel to and business with the communist island. But the US embassy in Havana, re-opened by former President Barack Obama, is still operating. Mr Castro was speaking in front of Cuba's national assembly. It was his first public comment on the policy changes Mr Trump announced a month ago. State-run Cuban media quoted Mr Castro as saying that Mr Trump was using "old and hostile rhetoric" and had returned to "confrontation that roundly failed over 55 years". He said: "We reject the manipulation of the topic of human rights against Cuba, which can be proud of much in this area and does not need to receive lessons from the United States nor anyone." Mr Trump anchored his policy rollback in human rights concerns raised by political opponents of Cuba's communist government, many of whom have fled to Miami where Mr Trump announced the changes on 16 June. Mr Castro continued: "Cuba and the United States can cooperate and live side by side, respecting their differences. But no one should expect that for this, one should have to make concessions inherent to one's sovereignty and independence." Mr Castro will step down as president in seven months, but will remain the head of the country's Communist Party.

Generated Output: President Raul Castro criticized President Trump's attempts to tighten restrictions on US travel and business with Cuba, saying they would fail. Castro emphasized that Cuba would not make concessions to its sovereignty and independence. He rejected the manipulation of human rights concerns against Cuba and stated that the two countries could cooperate while respecting their differences. Castro's comments came during his first public response to Trump's policy changes announced a month ago. He will step down as president in seven months but will continue to lead the Communist Party.

ROUGE-1: 0.50414, **ROUGE-2:** 0.31647, **ROUGE-L:** 0.48156, **F1:** 0.92403

Reference: Surman, 28, arrives back at Dean Court having previously spent two spells on loan at the Championship club. He spent last season with Bournemouth, making 39 appearances, and was also at the Cherries during the 2005-06 season. The former England Under-21 international started his career at Southampton before joining Wolverhampton Wanderers in 2009. Surman joined Norwich in 2010 and made 58 appearances for the Canaries.

Generated Output: Surman, 28, has returned to Dean Court after two loan spells at the Championship club. He played for Bournemouth last season and in the 2005-06 season. Previously, he started his career at Southampton, then joined Wolverhampton Wanderers in 2009 before moving to Norwich in 2010. He made 58 appearances for the Canaries.

ROUGE-1: 0.60408, **ROUGE-2:** 0.39731, **ROUGE-L:** 0.55941, **F1:** 0.94819

Reference: Media playback is not supported on this device The Scotland head coach's side sit second bottom of Group F ahead of the game at Hampden Park on 26 March. "We must win that game," he said. "There is no getting away from that." But Strachan did not wish to consider what a defeat would mean for his own future and said: "Whatever happens after that, we will look at that." The 60-year-old, who has been in charge since 2013, signed a new two-year contract in October 2015. Following successive 3-0 defeats

away to Slovakia and England, he took time to consider his position but decided in November to carry on after receiving the backing of the Scottish Football Association board. As he announced his squad for the 22 March warm-up friendly against Canada, followed by the qualifier against Slovenia, Strachan underlined his belief that the Scots could still reach the 2018 finals in Russia. "If we win that game, we will only be one point behind Slovenia, who are in second at the moment," he said. Strachan, whose side lie fifth with four points from four matches, insisted he had "no idea" how many points they might require from their final six matches to qualify, while admitting that the Scots could not afford further setbacks. "But we are looking forward to that challenge and I think the fans will be looking forward to that challenge of going to a game that you must win," he said. "So, together, we can make it a right good night for us. "The fans have always given us support, but we really need it on that night. "The guys will be prepared, the fans will be prepared and we are looking to put in a right good performance." Strachan will again field questions about his future should Scotland fall short. "I think fans, players, anybody who really wants us to do well, will be wishing us luck and dealing with anything after the game," he added. "Everyone who wants to see us go to the World Cup will be backing us to win this game. "The most important thing is three points and enjoying the build-up, which we will be doing. "The best part of my job is coaching and I am looking forward to that and then looking forward to the challenge of the game."

Generated Output: Scotland head coach Gordon Strachan acknowledges the importance of winning their upcoming game against Slovenia. Despite recent defeats, he remains optimistic about their chances of qualifying for the 2018 World Cup. Strachan emphasizes the need for fan support and is focused on preparing his team for the challenge ahead. He is determined to put in a good performance and secure three points in the crucial match.

ROUGE-1: 0.27539, **ROUGE-2:** 0.11141, **ROUGE-L:** 0.22387, **F1:** 0.89458

Reference: Parts of the Mariana Trench in the Pacific Ocean are up to 11 kilometres deep, so we know little about what sea life there is. So a team has been sending down a robotic submarine called Deep Discoverer with a camera on it. Science fans or anyone who is just curious can check out what the camera is showing online. The three-month expedition is looking for things like fish, mud volcanoes and deep sea coral. So far they've spotted shrimp, jellyfish and black pillow lava from an underwater eruption.

Generated Output: The Mariana Trench in the Pacific Ocean is extremely deep, making it difficult to study the sea life there. A team is using a robotic submarine with a camera to explore the trench and share their findings online. The expedition is looking for various marine life and geological features, and has already observed shrimp, jellyfish, and lava from an underwater eruption.

ROUGE-1: 0.48146, **ROUGE-2:** 0.33333, **ROUGE-L:** 0.45116, **F1:** 0.92614

Reference: Surman, 28, arrives back at Dean Court having previously spent two spells on loan at the Championship club. He spent last season with Bournemouth, making 39 appearances, and was also at the Cherries during the 2005-06 season. The former England Under-21 international started his career at Southampton before joining Wolverhampton Wanderers in 2009. Surman joined Norwich in 2010 and made 58 appearances for the Canaries.

Generated Output: Surman, 28, has returned to Dean Court after two loan spells at the Championship club. He spent last season at Bournemouth, making 39 appearances, and was also there in the 2005-06 season. He started his career at Southampton, then joined

Wolverhampton Wanderers in 2009 before moving to Norwich in 2010, where he made 58 appearances.

ROUGE-1: 0.66959, **ROUGE-2:** 0.45256, **ROUGE-L:** 0.61518, **F1:** 0.96429

Reference: But that requires a very patient man or woman to select the most important periods of play. Now scientists in Spain are trying to make that work easier by getting a computer to do it. The technology is being designed to automatically edit a whole game down to the key moments. The people behind it at the Polytechnic University of Catalonia have been working on it for a few years and have just published 18 pages of exactly how it works. Arnau Raventos is the lead professor on the project. He tells Newsbeat they have "been working with the local television companies in Spain in order to try to make the job easier for the person who manually does the summaries currently." Without having to read the full report (we did that for you) - in short - it analyses what are known as key-frames. So, every part of the match is looked over by the computer to spot tell-tale signs of when something interesting is happening. That might be lots of players grouped together, lots of zoomed-in action, extra noise from the crowd or the sound of the referee's whistle. Arnau calls them "occasions". "We want to find specific combinations of moments in a football match. A goal is an occasion." We thought of an example: if a defender goes down in the penalty box, everyone groups around them, you'll hear a whistle, there's lots of faces in the shot and a penalty happens. In theory, the technology should capture that. There is a long way to go though. The technology could frustrate even the most lukewarm of football fans because it hasn't quite nailed exactly the magic moment - when the goal goes in. In a test on five matches, the technology detected 70 per cent of the total goals. "We need to be sincere," says Arnau. "We need to say that at the moment it's not possible to perform a complete automatic summary just yet. It's difficult to detect all the goals." "However, we think it's very easy to discard those moments that are not important. For example, the panoramic views. They are easy to detect and to discard them so that already makes the job of the editor easier." Follow @BBCNewsbeat on Twitter and Radio1Newsbeat on YouTube

Generated Output: Scientists in Spain are developing technology to automatically edit football games down to key moments, making it easier for editors to create summaries. The technology analyzes key-frames to identify important moments in a match, such as goals or penalties. While the technology is not yet perfect and may miss some goals, it can easily discard unimportant moments like panoramic views. The goal is to make the job of summarizing games easier for editors.

ROUGE-1: 0.34492, **ROUGE-2:** 0.16617, **ROUGE-L:** 0.32459, **F1:** 0.90338

Reference: The 33-year-old former Scotland Under-21 cap, who arrived from Yeovil Town in 2012, has signed until May 2017, with a further one-year option. MacLean has scored 11 goals in 23 games for the Premiership outfit this season. He started out with Ranges and also spells with Scunthorpe United, Sheffield Wednesday, Cardiff City, Plymouth Argyle, Aberdeen, Oxford United and Cheltenham Town. Meanwhile, St Johnstone have sent two youth players on loan for the rest of the season, with defender Neil Martyniuk joining Montrose in League Two and striker Greg Kerr spending time with Whitehill Welfare in the Lowland League.

Generated Output: A 33-year-old former Scotland Under-21 player has signed a contract extension with his current team until May 2017, with a one-year option. He has scored 11 goals in 23 games this season. The player has previously played for several other clubs before joining his current team in 2012. Additionally, two youth players from St Johnstone have been sent on loan to other teams for the rest of the season.

ROUGE-1: 0.54166, **ROUGE-2:** 0.38646, **ROUGE-L:** 0.48446, **F1:** 0.92024

Reference: Surman, 28, arrives back at Dean Court having previously spent two spells on loan at the Championship club. He spent last season with Bournemouth, making 39 appearances, and was also at the Cherries during the 2005-06 season. The former England Under-21 international started his career at Southampton before joining Wolverhampton Wanderers in 2009. Surman joined Norwich in 2010 and made 58 appearances for the Canaries.

Generated Output: Surman, 28, has returned to Dean Court after two loan spells at the Championship club. He spent last season at Bournemouth, making 39 appearances, and was also there in the 2005-06 season. He started his career at Southampton, then joined Wolverhampton Wanderers in 2009 before moving to Norwich in 2010, where he made 58 appearances.

ROUGE-1: 0.66959, **ROUGE-2:** 0.45256, **ROUGE-L:** 0.61518, **F1:** 0.96429

Reference: Allsop, 25, made his Premier League debut in November 2015 and has spent time on loan at Coventry and Wycombe. Cooke, 20, won the European Championship with England Under-17s in 2014 and scored four goals while on loan at Crewe last season. League One Blackpool have now signed nine players this summer. Find all the latest football transfers on our dedicated page.

Generated Output: Two young players, Allsop and Cooke, have impressive football resumes and have been signed by League One Blackpool. The team has made a total of nine signings this summer. For more football transfer news, visit their dedicated page.

ROUGE-1: 0.34336, **ROUGE-2:** 0.12559, **ROUGE-L:** 0.27193, **F1:** 0.92254

Reference: Her best-known films include 1938's *Quai des Brumes* (Port of Shadows), in which she starred alongside Jean Gabin. She also appeared in Carol Reed's *The Fallen Idol* and opposite Humphrey Bogart in *Passage to Marseille*. In a statement, French president Francois Hollande said she "personified elegance and grace". He said: "Michele Morgan was more than just a gaze. Her legend left its mark on many generations." Morgan's Cannes award came in 1946 for her role as a blind woman in *La Symphonie Pastorale* (Pastoral Symphony). In later life, she received lifetime achievement accolades at the Venice Film Festival and the Cesar Awards, as well as a star on the Hollywood Walk of Fame. Morgan was considered for the role of Ilsa Lund in *Casablanca*, but lost out to Ingrid Bergman when film studio RKO refused to loan her to Warner Bros. Her film career faded with the arrival of the French New Wave in the 1960s, although she continued to work in television and on stage. Follow us on Facebook, on Twitter @BBCNewsEnts, or on Instagram at bbcnewsents. If you have a story suggestion email entertainment.news@bbc.co.uk.

Generated Output: Michele Morgan was a French actress known for her roles in films such as *Quai des Brumes*, *The Fallen Idol*, and *Passage to Marseille*. She was praised for her elegance and grace, and won the Cannes award in 1946 for her performance in *La Symphonie Pastorale*. Despite being considered for the role of Ilsa Lund in *Casablanca*, her film career declined with the rise of the French New Wave in the 1960s. She received lifetime achievement awards and a star on the Hollywood Walk of Fame. Morgan continued to work in television and on stage later in life.

ROUGE-1: 0.51186, **ROUGE-2:** 0.38163, **ROUGE-L:** 0.48369, **F1:** 0.91419

Reference: Aiton, 30, had scans to diagnose the injury on Monday. He joined the Dragons from Leeds at the end of 2015, and missed the end of the last campaign with an arm injury. The Papua New Guinea player played 94 games for both Wakefield and Leeds following his move from Cronulla-Sutherland Sharks in 2012.

Generated Output: 30-year-old Aiton had scans on Monday to diagnose an injury. He joined the Dragons in 2015 and missed the end of the last season due to an arm injury. Prior to joining the Dragons, he played 94 games for Wakefield and Leeds after moving from Cronulla-Sutherland Sharks in 2012.

ROUGE-1: 0.72788, **ROUGE-2:** 0.4626, **ROUGE-L:** 0.63697, **F1:** 0.9533
