AI破解连环杀手的思想之谜

根据专家的言论，~~抓捕~~搜索连环杀人犯，~~与其他的类型的犯人相比要极为不同~~是一种和杀人案的侦查有本质不同的侦查类型。近十年的在极端专业领域的顶尖~~刑警~~调查员已经转变成凭借技术~~追捕~~搜寻犯人。在2017年~~特指的就是~~这项技术就是人工智能，就像其他东西一样，这是~~技术进步的结果~~行业的革命。

知晓美国现在有多少活跃的连环杀手是不可能的。根据~~法院审理~~执法和其他~~的一些~~政府~~失败~~的不充分报道、~~伪证~~未分类的证据以及~~未知谜团~~真正的迷案，最好的估计是25到340个。FBI认为每年估计有150人被这些~~嫌疑人~~杀手谋杀。其他专家认为这一数字可能更高。

这些连环杀手面临的是黑暗的未来，但是首先机器需要理解它们处理的是什么问题。有句俗语这么说“想抓住杀手，要像杀手一样思考”，~~这对于机器来说是实话~~这是真正的像机器一样的人。

发表在History Channel上的一篇学术论文，是关于通过把全部~~可用~~可获得的~~杀手~~“十二宫杀手”信息暴露在AI面前来训练AI像杀手一样思考。History.com的Brynn Holland和 Missy Sullivan报道到：

*在1960年末到1970年初，~~自名~~一位自称的杀手接连的随机杀人以及~~留信~~留给警方和报社的辱骂信，让整个南加州陷入了恐慌。这些~~被害人~~公告中有四个包含了由~~恐吓~~复杂的信件和抽象标志组成的~~图像~~密码。Cryptologists思考了~~Zodiac~~“十二宫”的340个特征密码，~~排好顺序并~~在1969年9月发给了~~旧金山的警方~~《旧金山编年史》，就像分好类的圣杯一样。*

名叫“~~罪行~~卡梅尔”的人工智能，和它的创造者Kevin Knight，已经~~有了法律~~留下了遗产。他们破译了一个叫做“Copiale ~~Cipher~~密码”的~~编码~~密码，~~这条编码的秘密~~这个密码自从18世纪以来就守护着自己的秘密一直没有被破解。

另一个关于“~~罪行~~卡梅尔”的有趣事实是：~~它可以创作很棒的诗~~它是一个相当有成就的诗人。机器~~在网站上发表诗集（不受监管）~~在有需要的时候可以在网站上即兴创作诗歌（并且是免费的）。你可以在这里看到它创作的诗，并且你可能已经猜到了，它~~运行得相当完美~~写的确实很奇怪。

解决了古老的问题，然而，并不会为我们如今的连环杀手问题提供任何实质性的帮助。为了更好地追捕这些真实的怪物，我们需要像Facebook处理他们拥有的你家庭的数据一样，处理已有的连环杀手的数据。

你可能猜到了需要人工智能的技术，你说对了。

《纽约时报》近期描述了Thomas Hargrove和他的算法。同时，和其他团队的成员一起，他们~~研发~~组成了~~杀手分析程序~~谋杀责任项目组（MAP）。他们团队写到：

美国在~~处理和分析~~跟踪和解释他们未解决的杀人案上做的很差。每年都有至少5000个杀人犯逍遥法外。近些年来~~这个比率才有所下降~~通过逮捕解决杀人案的比率有所下降，直到今天，~~还有差不多三成未解决~~这个比率处在第三的位置。

这是很恐怖的。然而，他们的团队有解决方案。多亏了~~年代久远的流行于一时的案件被解决~~过去的一些优秀硬核调查刊物以及~~机器学习的发展~~对于机器学习的了解有了不错的结果，他们已经可以描绘出谋杀的地图。这可能听起来~~不可思议~~很可怕，~~并且完全~~它确实就是这样，但是它~~同样~~提供了基于~~技术~~自知力的~~样本类型~~模型，在~~这点~~搜集信息上人工智能做的比人要好。

在芝加哥，刚刚，这个团队~~分析了一个针对女性的连环杀手~~正在关注一个主要勒死女性的连环杀手。他们的人工智能根据FBI~~追捕中~~侦查的报道的杀手行动识别了一系列“~~特征~~可疑群簇”。~~死者这些典型的特征可能有助于分析杀人时的活动或其他特征~~往往死者的这些特征可能会归因到其他类型的杀人案上，人工智能可以分~~析样本特征类型~~识别出特殊的模板并与其联系起来。

不仅仅是芝加哥，Hargrove的团队还发现了~~所有国家的许多特征~~国家中各个地区的群簇。

在MAP网站上，用户可以通过保存有当前以及历史杀人犯~~信息~~的统计信息的数据库来搜索，就像谷歌谋杀分析一样。这~~显示了美国的局限性~~似乎是被美国限制的，但是另一方面(除此之外)它是一个强壮的工具，~~以及~~这是一个好例子来展现人工智能是怎么用在~~分析物体上~~好的地方。

甚至当人工智能不再用于~~追捕~~跟踪连环杀手或解码的时候，它还~~能代表~~有潜在的光明未来。

就像~~科技~~肿瘤医生将会有一天依赖人工智能来~~验证~~确认他们的~~数据~~诊断（或者甚至提供它们的诊断信息），~~这将会使所有犯罪数据通过可提供确切数据的AI来运行~~把犯罪现场的所有数据集中在一起，然后交给人工智能来运行并提供引导或是直接的调查是很必要的。

~~公司~~服务机构正在开始雇佣人工智能，比如Veritone研发的，来~~研究~~筛选影像。这是一项传统上我们不得不依赖人类去做的工作。在未来会有数千小时的影像可以被迅速分析，我们联系一个杀手到下一个杀手之间的点的能力将会~~显著~~呈指数提高。

与此同时，~~将总有双胞胎带着互相感应的思想出生~~很可能总将会有那么一些古怪的人，自从生下来，无论心里有什么痛苦都会残忍地自杀，很令人欣慰的是技术发展使我们的世界更加安全。

原文：

AI is unraveling the mysteries of the serial killer mind

Hunting a serial killer is, [according to experts](https://www.fbi.gov/stats-services/publications/serial-murder), a fundamentally different type of detective work than any other type of homicide investigation. For decades the top investigators in this hyper-specialized field have turned to technology. In 2017 this means AI, and just like everything else, it’s revolutionizing the industry.

It’s impossible to know how many active serial killers there are in the US right now. Due to law enforcement and other government reporting failures, miscategorized evidence, and genuine mystery the best estimate we have is somewhere between [25 and 340](https://www.scientificamerican.com/article/5-myths-about-serial-killers-and-why-they-persist-excerpt/). The FBI thinks about 150 people a year are murdered by these predators. [Other experts](http://murderdata.org/) think that number is much higher.

There’s a dark future ahead for serial killers, but first machines need to understand what they’re dealing with. There’s an adage that goes “to catch a killer, you have to think like one” and this is true of computers as much as men.

One academic, in conjunction with The History Channel, is teaching AI to [think like a killer](http://www.history.com/news/this-supercomputer-was-programmed-to-think-like-the-zodiac-killer) by exposing it to all the information available on The Zodiac Killer. As reported by [History.com’s](http://www.history.com/news/this-supercomputer-was-programmed-to-think-like-the-zodiac-killer) Brynn Holland and Missy Sullivan:

In the late 1960s and early 1970s, the self-named murderer terrorized Northern California with a succession of random killings and taunting letters to the police and newspapers. Four of those communiqués contained ciphers filled with perplexing letters and abstract symbols. Cryptologists consider the Zodiac’s 340-character cipher, sent to The San Francisco Chronicle in November 1969, a holy grail of sorts.

The AI, named CARMEL, and its creator, Kevin Knight, already have a legacy. They broke a code called the Copiale Cipher, that’d held its secrets unsolved since the 18th century.

Another fun fact about CARMEL: it’s quite the accomplished poet. The machine creates impromptu poetry on demand (and free of charge) on [its website.](http://52.24.230.241/poem/advance/) You can check it out here and, as you may have guessed, its work is decidedly creepy.

Solving an old case, however, won’t necessarily provide any actionable insight on our current serial killer problem. In order to take the hunt for these very real monsters to the next level, we need to treat the data we have on serial killers as seriously as Facebook treats the data it has on your family.

You probably guessed that this requires AI, and you’re correct.

The New Yorker recently [profiled](https://www.newyorker.com/magazine/2017/11/27/the-serial-killer-detector) Thomas Hargrove and his algorithms. Together, along with several other team members, they comprise the Murder Accountability Project (MAP). The group writes:

America does a poor job tracking and accounting for its unsolved homicides. Every year, at least 5,000 killers get away with murder. The rate at which police clear homicides through arrest has declined over the years until, today, about a third go unsolved.

That’s terrifying. However, they’re a group with solutions. Thanks to some good old fashioned hardcore investigative journalism and a healthy amount of machine learning insights they’ve been able to create a map of murder. That may sound macabre, and it absolutely is, but it’s also providing the type of pattern based insight that AI is better at gleaning than humans.

In Chicago, right now, the group is concerned there’s a serial killer strangling women. Its AI has identified several “suspicious clusters” of murder activity which it reported to the FBI for investigation. While typically these types of deaths might be attributed to gang activity or other types of killings, AI is able to discern specific types of patterns and connect them.

And it’s not just Chicago. Hargrove’s group has found many clusters all over the country.

On the MAP website users can search through its database of current and historical murder statistics, like a Google Analytics for killings. It appears limited to the US, but otherwise it’s a robust tool, and a fine example of how AI can be used for the forces of good.

Even when AI isn’t purpose built for tracking serial killers or cracking codes, it still represents a future bright with potential.

Just like oncologists will one day rely on AI to confirm their diagnoses (or even [provide them](https://thenextweb.com/artificial-intelligence/2017/10/27/doctor-diagnosing-cancer-using-iphone-definition-disruptive-technology/)), it’ll be imperative that all data gathered at a crime scene be run by an AI that can [produce leads](https://www.newscientist.com/article/mg23431254-000-ai-detective-analyses-police-data-to-learn-how-to-crack-cases/) or direct investigations.

Agencies are beginning to employ AI, like Veritone’s, to [sift through video](https://www.nanalyze.com/2017/11/8-companies-ai-law-enforcement/). This is a task that we’ve had to rely on humans to do traditionally. In a future where thousands of hours of video can be analyzed instantly, our ability to connect the dots between one murder and the next will increase exponentially.

And while, presumably, there will always be twisted humans born with whatever affliction of the mind causes a person to commit atrocity, it’s comforting to know that advances in technology are making our world a safer place.