



# Low-Tech Fixes<sup>1</sup> for High-Tech Problems

## 低技术应急法解决高科技难题

By Paul Boutin

Behind the cash register at Smoke Shop No. 2 in downtown San Francisco, Sam Azar swipes a customer's credit card to \*ring up<sup>2</sup> Turkish cigarettes. The store's card reader fails to scan the card's magnetic strip. Azar swipes again, and again. No luck.

As customers begin to queue, he reaches beneath the counter for a black plastic bag. He wraps one layer of the plastic around the card and swipes it again. Success. The sale is rung up.

"I don't know how it works, it just does," says Mr. Azar, who learned the trick years ago from another clerk. Verifone, the company that makes the store's card reader, would not confirm or deny that the plastic bag trick works. But it's one of many low-tech fixes for high-tech failures that people without engineering degrees have discovered, ►

在旧金山市中心的第二香烟店,站在收银机后的萨姆·阿萨尔正在为刚买了土耳其卷烟的顾客刷信用卡计费。商店的读卡器无法扫读信用卡的磁条。阿萨尔刷了一遍又一遍。运气不佳。

当顾客排起队来的时候,他从柜台下拿出一个黑色塑料袋,把信用卡用一层塑料包起来,又刷了一次。成功,计费完成。

几年前从另一个店员那里学到这手的阿萨尔说:“我不知道这是怎么回事,但这招儿就是灵。”商店所用读卡器的生产商惠尔丰公司对这个塑料袋小窍门的作用未置可否。但这是解决高科技难题的众多低技术应急法中的一个,这些法子对于那些没有拿过工科学位的人常常是在绝 ►

1. fix [fiks] *n.* 补救方法 应急措施

2. ring up 把...记入现金进出记录

### 背景知识

第8段 Reed Smoot and Willis Hawley 里德·斯穆特和威尔斯·霍利。来自犹他州的共和党人、参议员里德·斯穆特和来自俄勒冈州的共和党人、众议员威尔斯·霍利共同发起了斯穆特-霍利关税法(The Smoot-Hawley Tariff Act)。该法案于1930年6月17日经签署成为法律,它将2000多种进口商品的关税提升到历史最高水平。当时在美国,有1028名经济学家签署了一项请愿书抵制该法案,而在该法案通过之后,许多国家对美国采取了报复性关税措施,使美国的进口额和出口额都骤降50%以上。一些经济学家认为,斯穆特-霍利法案是导致美欧之间贸易规模从1929年的历史高位急剧衰退到1932年历史低位的催化剂——这次衰退伴随着的是大萧条的开始。

第10段 An attempt to prop up ... out of Britain's. 爱尔兰支撑国内银行的企图却把英国银行里的存款吸纳走。随着源自美国的金融危机向欧洲蔓延,多家欧洲金融机构陷入困境。为此,欧洲各国政府近日相继出台规模不等的银行个人存款保护措施,以保障储户利益。2008年10月,爱尔兰率先宣布担保国内储蓄机构所有个人存款的安全。由于国内金融市场遭遇严重流动性短缺,爱尔兰政府通过了一项紧急法案,向国内6大银行提供为期两年总额达4000亿欧元的个人存款担保,以维护国内金融市场稳定。此举招致了以英国和德国等欧盟其他成员国的不满,认为这一方案将破坏银行间公平竞争。但由于担心各自国内的银行存款流向爱尔兰,欧盟各国不得不采取类似措施。

(吴文安 译注自 *The Economist* Feb.5 2009)

often out of desperation, and shared.

Today's shaky economy is likely to produce many more such tricks. "In postwar Japan, the economy wasn't doing so great, so you couldn't get everyday-use items like household cleaners," says Lisa Katayama, author of "Urawaza," a book named after the Japanese term for clever lifestyle tips and tricks. "So people looked for ways to do with what they had."

Popular *urawaza* include picking up broken glass from the kitchen floor with a slice of bread, or placing houseplants<sup>3</sup> on a water-soaked diaper to keep them watered during a vacation trip.

Today, Americans are finding their own tips and tricks for fixing misbehaving gadgets with supplies as simple as paper and \*adhesive tape<sup>4</sup>. Some, like Mr. Azar's plastic bag, are open to argument as to how they work, or whether they really work at all. But many tech home remedies can be explained by a little science.

### Cellphone Losing Charge

If your cellphone loses its battery charge too quickly while idle in your pocket, part of the problem may be that your pocket is too warm.

"Cellphone batteries do indeed last a bit longer if kept cool," says Isidor Buchanan, editor of the Battery University Web site. The 98.6-degree body heat of a human, transmitted through a cloth pocket to a cellphone inside, is enough to speed up chemical processes inside the phone's battery. That makes it run down faster. To keep the phone cooler, carry it in your purse or on your belt.

This same method can be used to preserve your battery should you find yourself away from home without your charger. Turn off the phone and put it in the hotel refrigerator overnight to slow the battery's natural tendency to lose its charge.

### Remote Car Key

Suppose your remote car door opener does not have the range to reach your car across the parking lot. Hold the metal key part of your key fob<sup>5</sup> against your chin, then push the unlock button. The trick turns your head into an antenna, says Tim Pozar, a Silicon Valley radio engineer.

Mr. Pozar explains, "You are capacitively<sup>6</sup> coupling the fob to your head. With all the fluids in your head it ends up being a nice conductor. Not a great one, but it works." ►



望之余发现的,并且拿来彼此分享。

时下动荡的经济可能会产生更多这类妙招。《Urawaza》(日语意为“聪明的生活窍门”)一书的作者莉萨·片山说:“在战后的日本,经济还不十分繁荣,买不到像家用清洁剂这样的日用品,所以人们开始寻找因陋就简的法子。”

人们熟知的一些诀窍包括用一片面包捡拾厨房地板上的碎玻璃,或者把家里的盆栽放在浸满水的尿布里,外出旅行期间它们就不会缺水干涸。

现今,美国人也在寻找自己的窍门,利用简单的物品如纸张和胶带来修理不听使唤的机器。一些窍门——如阿萨尔先生的塑料袋——何以奏效抑或它们是否真能奏效还有待争论,但许多高科技难题的家用窍门略用一点科学知识就可以作出解释。

### 手机电量损失

如果你的手机待机放在衣兜里时电池电量释放过快,一部分原因可能是你的衣兜里太热了。

“电池大学”网站的编辑伊西多·布坎南说:“手机电池在凉爽条件下的确能使用更长的时间。”98.6华氏度的人体体温通过衣服口袋传给手机,这足以加速手机电池内部化学过程的速度,使手机电池放电更快。为了让手机更凉一些,可以把它放在手袋里或者挂在腰带上。

如果你出门在外发现没带充电器,也可以用同样的方法维持电池电量。关掉手机,放进旅馆的冰箱里一整晚,减慢电池自然放电的速度。

### 遥控汽车钥匙

假设你的遥控车门钥匙超出了遥控的范围,没法打开停在车场另一边的车。你可以用钥匙串的金属部分顶到下巴上,然后按下开锁键。硅谷的一名无线电工程师蒂姆·波扎尔说,这招儿就是拿你的脑袋当天线。

波扎尔解释说:“你把钥匙和你的头通过电容耦合起来。由于你的脑袋里有很多液体,所以它可以充当一个不错的导体。虽 ►

Using your head can extend the key's wireless range by a few car lengths.

### Dry Ink Cartridge<sup>7</sup>

If your printer's ink cartridge runs dry near the end of an important print job, remove the cartridge and run a hair dryer on it for two to three minutes. Then place the cartridge back into the printer and try again while it is still warm.

"The heat from the hair dryer heats the thick ink, and helps it to flow through the tiny nozzles<sup>8</sup> in the cartridge," says Alex Cox, a software engineer in Seattle. "When the cartridge is almost dead, those nozzles are often nearly clogged<sup>9</sup> with dried ink, so helping the ink to flow will let more ink out of the nozzles." The hair dryer trick can squeeze a few more pages out of a cartridge after the printer declares it is empty.

### Cellphone in the Toilet

It could happen to anyone: you dropped your cellphone in the toilet. Take the battery out immediately, to prevent electrical \*short circuits<sup>10</sup> from frying your phone's fragile internals. Then, wipe the phone gently with a towel, and shove it into a jar full of uncooked rice.

It works for the same reason you may keep few grains of rice in your salt shaker<sup>11</sup> to keep the salt dry. Rice has a high chemical affinity<sup>12</sup> for water—that means the molecules in the rice have a nearly magnetic attraction for water molecules, which will be soaked up into the rice rather than beading<sup>13</sup> up inside the phone.

It is a low-tech version of the "Do Not Eat" desiccant<sup>14</sup> packets that may have been packed in the box the phone came in, to keep moisture away from the circuitry<sup>15</sup> during shipping and storage.

### Longer Wi-Fi<sup>16</sup> Reach

If your home Wi-Fi router doesn't reach the other end of the house, don't rush out to buy more wireless gear to stretch your network. Instead, build a six-inch-high passive radio wave reflector from kitchen items, like an aluminum cookie sheet<sup>17</sup>.

Follow the instructions at [freeantennas.com/projects/template](http://freeantennas.com/projects/template). Place the completed reflector—a small, curved piece of metal that reflects radio waves just like a satellite TV ►

然效果没那么好,但是也管用。”利用脑袋可以延长钥匙的无线距离,增加几个车长。

### 干涸的墨盒

如果重要文件即将打完时墨盒突然干了,你可以取下墨盒,用吹风机对着它吹两到三分钟。然后把墨盒装回打印机,趁热再试一下。

西雅图的一位软件工程师亚历克斯·考克斯说:“吹风机的热量烘热了稠墨,便于它从墨盒上细小的喷嘴里流出。墨盒快没墨时,这些喷嘴往往快被干墨堵住,所以帮助它流动可以让更多的墨流出喷嘴。”当打印机提示墨用光以后,利用吹风机的小窍门可以凑合多打出几页纸来。

### 手机掉到马桶里

人人都可能遇到这种事:你的手机掉进了马桶里。这时要立即取下电池,避免短路烧掉手机脆弱的内部元件。然后轻轻地用毛巾擦干手机,再将其放进一满罐生米中。

同样的道理,你也可以在盐瓶里放一些米粒,保持盐的干燥。大米有很高的化学亲水性,这意味着大米的分子对水分子有近乎磁铁般的吸引力,这样水分子就被吸收进大米中,而不会珠结在手机里。

手机买来时包装盒里可能会带有标着“不可食用”的干燥剂小包,以避免运送和储存的过程中手机电路的潮湿,而巧用大米恰恰就是低科技版本的干燥剂。

### 增大无线网络范围

如果你家的无线网络路由器无法覆盖房子的另一端,不要急着去买更多的无线装备来扩大你的网络覆盖面。相反,你可以利用一些厨房用品如铝制的曲奇烤盘,制作一个6英寸高的无源无线电波反射装置。

按照 [freeantennas.com/projects/template](http://freeantennas.com/projects/template) 上的指示做。把做好的反射装置——一小块弯曲的金属片,就像反射无线电波的卫星电视抛物面天线那样——放在无线网络路由 ►

3. houseplant [ˈhaʊsplɑːnt] *n.* 室内盆(或箱)栽植物  
4. adhesive tape 胶带; [医] 创可贴  
5. fob [fɒb] *n.* (带饰物的)怀表短链(或短带); 表链(或表带)饰物  
6. capacitively [kəˈpæsɪtɪvli] *ad.* [电] 电容地; 有关电容地  
7. cartridge [ˈkɑːtrɪdʒ] *n.* (装置某种材料以便塞入较大装置的)容器; 套筒; 笔壳(钢笔等的)墨水囊; 笔芯  
8. nozzle [ˈnɒzl] *n.* 管嘴; 喷嘴; 喷管; 火箭发动机喷嘴  
9. clog [klɒɡ] *vt.* 塞满; 阻塞; 堵塞

10. short circuit [电] 短路  
11. shaker [ˈʃeɪkə(r)] *n.* (盖上有小孔的)佐料瓶  
12. affinity [əˈfɪnəti] *n.* [化] 亲和性; 亲和力  
13. bead [biːd] *vi.* 结珠; 形成珠状  
14. desiccant [ˈdesɪkənt] *n.* 干燥剂  
15. circuitry [ˈsɜːktɪrɪ] *n.* [总称] 电路元件  
16. Wi-Fi *abbr.* Wireless Fidelity 无线保真  
17. sheet [ʃiːt] *n.* 干烘平锅

dish<sup>18</sup>—behind your Wi-Fi router. It focuses the router's energy in one direction—toward the other end of the house—rather than letting it dissipate<sup>19</sup> its strength in a full circle. No cables, no batteries, no technical knowledge required. Yet it can easily double the range of your network.

### Dirty Discs

You need to clean a skipping DVD or CD, but as a bachelor you don't have any sissy<sup>20</sup> cleaning fluids? Soak a washcloth with vodka or mouthwash.

Alcohol is a powerful solvent<sup>21</sup>, perfectly capable of dissolving fingerprints and grime<sup>22</sup> on the surface of a disc. A \$5 bottle of Listerine in your medicine cabinet may do the job as effectively as a \$75 bottle of DVD cleaning fluid. Also, swabbing<sup>23</sup> your copy of “Lost Weekend” with Stoli instead of fussing with a Discwasher kit is a lot more manly.

### Too Much Flash

If your cellphone's built-in camera flash is much too bright, washing out photos, tape a small piece of paper over the flash. Experiment with different colors and thicknesses of paper to \*tone down<sup>24</sup> the flash from superbright white to a more pleasing glow for evening photos.

### Crashed<sup>25</sup> Hard Drive

If—no, make that when—your PC's hard drive crashes and can't be read, don't be too quick to throw it out. Stick it in the freezer overnight.

“The trick is a real and proven, albeit \*last resort<sup>26</sup>, recovery technique for some kinds of otherwise-fatal hard-drive problems,” writes Fred Langa on his Windows Secrets Web site. Many hard drive failures are caused by worn parts that no longer align<sup>27</sup> properly, making it impossible to read data from the drive. Lowering the drive's temperature causes its metal and plastic internals to contract ever so slightly. Taking the drive out of the freezer, and returning it to room temperature can cause those parts to expand again.

That may help free up binding parts, Mr. Langa explains, or at least let a failing electrical component remain within specs<sup>28</sup> long enough for you to recover your essential data.

That's the spirit of folk remedies: They may or may not work, but what have you got to lose? ■

器后面。它能让路由器的能量集中于一个方向——指向房子的另一端——而不是分散信号到各个方向,不需要电线,不需要电池,不需要专业技术知识,你可以轻而易举将网络的覆盖面扩大一倍。

### 脏了的光盘

你需要清洗一张跳碟的DVD或者CD盘,可身为单身汉的你并没有那些女人气的清洗液体,怎么办?将洗碗布浸在伏特加酒里或者漱口液里。

酒精是一种强力溶剂,能够完全溶解光盘表面的指纹和污垢。药橱里5美元一瓶的利斯特林漱口液也许能够起到和75美元一瓶的DVD清洗液一样的效果。同样,用苏联红牌伏特加酒而不用大费周章地使用碟片清洗套件来擦拭《失去的周末》光盘,更显男人味。

### 闪光灯太强

如果你手机上的内置相机闪光灯太亮,冲淡了照片的色彩,那么你可以在闪光灯上贴一小块纸。试试用不同颜色和厚度的纸来让闪光灯更柔和一些,从超亮的白光变成更适宜夜景照片的亮光。

### 硬盘崩溃

如果——不,还是用“万一”——你的电脑硬盘崩溃了,无法读取数据,不要太急于扔掉它。把它放在冰箱里一个晚上。

弗雷德·兰加在“视窗系统的秘密”网站上写道:“对于某些非致命的硬盘问题,这招儿是个经过证实真实有效的恢复手段,不过也是最后一招。”许多硬盘问题是由零件磨损而致位置排列不正引起的,使其无法读取硬盘数据。降低硬盘的温度可以让硬盘内部的金属和塑料构件稍稍收缩一些。从冰箱中拿出硬盘,回到室温,可以让这些零件再次膨胀一些。

兰加解释说,这样做可能有助于松脱结合在一起的部分,或者至少让失灵的电子元件保持正常工作状态,使你有时间挽救重要的数据。

这就是民间妙方的精髓:它们可能有效,也可能无效,反正你又会损失什么。(涂颀译自 *The New York Times* Feb. 19, 2009)

18. dish [dɪʃ] *n.* <口> 抛物面反射器, 抛物面天线

19. dissipate [ˈdɪspɪet] *vt.* 浪费, 挥霍, 消磨, 消耗(精力等)

20. sissy [ˈsɪsi] *a.* <口> 女孩子气的, 女人腔的

21. solvent [ˈsɒlvənt] *n.* 溶剂

22. grime [ɡraɪm] *n.* (深嵌的)污垢, 煤灰, 煤尘, 肮脏混乱

23. swab [swɒb] *vt.* 擦洗, 擦拭(地板等)

24. tone down (使)柔和 (使)缓和 (使)协调 (使)降低

25. crash [kræʃ] *vi.* [计算机](机器、系统或软件)突然出故障; 崩溃

26. last resort 最后一招, 最后的解决办法

27. align [əˈlaɪn] *vi.* 恰当排列

28. specs [speks] *n.* [复]<口>说明书, 工程设计书, 规格, 明细单