

THE WALL STREET JOURNAL.

A Love Affair On the Rocks

PERSONAL JOURNAL | DI



High-End Hostels' New Bohemia

MONEY & INVESTING | CI

DOW JONES News Corp ***** WEDNESDAY, MAY 27, 2015 ~ VOL. CCLXV NO. 122 WSJ.com ★★★ \$3.00
DJIA 18041.54 ▼ 190.48 1.0% NASDAQ 5032.75 ▼ 1.1% NIKKEI 20437.48 ▲ 0.1% STOXX600 403.61 ▼ 0.7% 10-YR. TREAS. ▲ 22/32, yield 2.135% OIL \$58.03 ▼ \$1.69 GOLD \$1,187.20 ▼ \$17.10 EURO \$1.0874 YEN 123.11

What's News

Business & Finance

Express Scripts is seeking deals with drug companies that would set pricing for some cancer treatments based on how well they work. **A1**

◆ **U.S. business investment** is picking up. Durable-goods orders fell in April, but excluding the volatile transportation sector, orders increased. **A2**

◆ **New-home sales** rebounded in April and prices climbed, in signs of rising demand in a tight housing market. **A2**

◆ **The Dow slumped** 190.48 points, or 1%, to 18041.54, its biggest loss since April 30, as a fresh batch of uneven economic data jolted investors. **C1**

◆ **Charter pledged** to invest in new broadband products and avoid disputed pricing as it announced its planned deal for Time Warner Cable. **B1, B2**

◆ **Dewey & LeBoeuf's** three former leaders oversaw a plan to mask the law firm's real finances, prosecutors alleged as a criminal trial began. **B1**

◆ **The FTC cleared** Reynolds's \$25 billion deal for Lorillard after nearly a year scrutinizing the tobacco merger. **B4**

◆ **Hormel agreed** to buy Applegate for about \$775 million, giving it a foothold in the organic-meats category. **B3**

◆ **Taco Bell and Pizza Hut** committed to removing artificial flavors and colors from most of their food. **B3**

◆ **The dollar climbed** to a nearly eight-year high against the Japanese yen. **C4**

◆ **Data-storage giant EMC** agreed to buy Virtustream for \$1.2 billion in cash. **B6**

World-Wide

◆ **The IRS said** cybercriminals used stolen Social Security numbers and other data to get tax-return information for about 100,000 households. **A1**

◆ **Top leaders of FIFA**, soccer's governing body, will be indicted in Brooklyn federal court as early as Wednesday on corruption charges. **A1**

◆ **The Supreme Court** agreed to decide whether only eligible voters are to be counted when forming legislative districts. **A4**

◆ **Iraqi military** and paramilitary forces launched attacks around Ramadi in what Baghdad called the start of an offensive against Islamic State. **A6**

◆ **China outlined** plans to shift its military's focus toward maritime warfare and accused foreign countries of "meddling" in the South China Sea. **A14**

◆ **Storms that caused** massive weekend flooding swept into Houston, leaving at least 15 dead and about as many missing in Texas and Oklahoma. **A3**

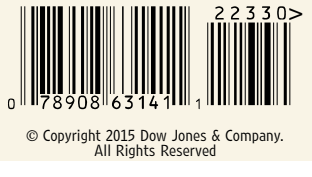
◆ **A U.S. appeals court** declined to let the Obama administration proceed with its plan to defer deportations of undocumented immigrants. **A4**

◆ **Cleveland agreed** to beef up police oversight and retrain officers as part of a settlement with the government over allegations of excessive force. **A3**

◆ **An American reporter** went on trial in Tehran for espionage, 10 months after his arrest in the Iranian capital. **A6**

◆ **An ex-Mafia boss** convicted of murder was arrested in Brazil, over 30 years after his escape from a hospital in Italy. **A9**

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Shiite Militias Lead Iraqi Fight Against Islamic State



BROAD INITIATIVE: A portrait of Iraq's Grand Ayatollah Ali al-Husseini al-Sistani adorned a military vehicle as Shiite Muslim militias, some backed by Iran, joined Iraqi government troops in preparing for an operation to retake the mostly Sunni city of Ramadi from Islamic State. **A6**

U.S. Alleges Broad Corruption At Global Soccer Organization

By ARUNA VISWANATHA AND CHRISTOPHER M. MATTHEWS

U.S. authorities are preparing to unveil a criminal indictment against officials of soccer's international governing body that will detail allegations of widespread corruption, according to people familiar with the matter. The indictment against officials of the International Federation of Association Football,

known as FIFA, was expected to be unsealed in Brooklyn federal court against multiple individuals as early as Wednesday morning, the people said. Authorities were gearing up to raid FIFA's offices in Zurich, according to a person familiar with the matter. As many as 12 officials were expected to be arrested, the person said.

It wasn't immediately clear who would be charged, though the indictment was expected to include at least some current officials, these people said. Prosecutors expect to announce the case at a news conference at the Brooklyn U.S. attorney's office, which is leading the investigation. U.S. Attorney General Loretta Lynch, Federal Bureau of Investigation Director James Comey and Internal Revenue Service criminal chief Richard Weber are expected to ap-

pear in Brooklyn to announce the case, the people said.

The indictment is likely to roil the governing body of the world's most popular sport, which has been dogged by allegations of corruption and bribery for years.

The development comes less than a week after the U.S. Justice Department announced that it had filed a criminal indictment against FIFA officials.

◆ For the latest news on FIFA, go to WSJ.com

◆ For the latest news on FIFA, go to WSJ.com

Breach At IRS Exposes Returns

By JOHN D. MCKINNON AND LAURA SAUNDERS

The Internal Revenue Service said Tuesday that identity thieves used one of its online services to obtain prior-year tax return information for about 100,000 U.S. households, a major breach of the agency charged with safeguarding taxpayers' privacy.

The agency said cybercrooks used stolen Social Security numbers and other specific data acquired from elsewhere to gain unauthorized access to the tax-agency accounts, beginning in February and continuing through mid-May.

About 104,000 attempts successfully accessed earlier returns, IRS Commissioner John Koskinen said. An additional 100,000 attempts were unsuccessful, the agency said.

The incident, which echoes similar problems earlier this year in some states, highlights the growing risks from cybersecurity breaches to both individuals and the government. It particularly reflects crooks' ability to carefully aggregate vast amounts of personal data from multiple sources, and plan and execute highly sophisticated schemes.

The agency believes fewer than 15,000 refunds were paid as a result of the frauds, and the total paid out was under \$50 million, Mr. Koskinen said. But in a statement, the IRS said it is possible that some of the stolen tax transcripts were being stockpiled "with an eye toward using them for identity theft for next year's tax season."

The IRS said that to access the information, crooks had to clear a multistep authentication process that required personal knowledge of the taxpayer.

◆ For the latest news on IRS, go to WSJ.com

China Warns Against 'Meddling'



AGITATION: China outlined plans to focus on maritime warfare, as discord grows over artificial islands it is building in disputed waters. **A14**

New Push Ties Cost of Drugs To How Well They Work

By PETER LOFTUS

Express Scripts Holding Co., a large manager of prescription-drug benefits for U.S. employers and insurers, is seeking deals with pharmaceutical companies that would set pricing for some cancer drugs based on how well they work.

The effort is part of a growing push for pay-for-performance deals amid complaints about the rising price of medications, some of which cost more than \$100,000 per patient a year.

Some insurers and prescription-benefit managers are arguing that they should pay less when drugs don't work well in certain patients. Drug companies are countering with pricing models of their own, such as offering free samples.

◆ Proton treatment centers face market uncertainty..... **B1**

Art World Tries to Crack the Code Of Collecting Algorithms

How do admirers hold on to computerized formulas? 'Invisible, conceptual, kinetic'

By ROBERT LEE HOTZ

In March, Daniel Benitez, a cinema executive in Miami, paid \$2,500 for a necktie. It wasn't just any strip of designer neckwear. Imprinted on the blue silk were six lines of computer code that once brought the motion picture industry to its knees.

To the unschooled eye, the algorithm script on the tie, known formally as "qrpf," looks like a lengthy typographical error.

But to Mr. Benitez and other computer cognoscenti, the algorithm it encodes is an artifact of rare beauty that embodies a kind of performance art. He framed it.

The algorithm sets out a procedure for what copyright hold-

FIRMS SEND MORE CASH BACK TO SHAREHOLDERS

Activists push for returns, fueling worries about long-term investment

By Vipal Monga, David Benoit and Theo Francis

U.S. businesses, feeling heat from activist investors, are slashing long-term spending and returning billions of dollars to shareholders, a fundamental shift in the way they are deploying capital.

Data show a broad array of companies have been plowing more cash into dividends and stock buybacks, while spending less on investments such as new factories and research and development.

Activist investors have been pushing for such changes, but it isn't just their target companies that are shifting gears. More businesses sitting on large piles of extra cash are deciding to satisfy in-

vestors by giving some of it back. Rock-bottom interest rates have made it cheap to borrow to buy back shares, which can boost a company's stock price. And technology-driven productivity gains are enabling some businesses to do more with less.

As the trend picks up steam, so too has debate about whether activist investors—who take sizable stakes in companies, then agitate for changes they think will boost share prices—have caused companies to tilt too far toward short-term gains.

◆ Silicon Valley grits teeth over activist investors... **B1**

Advertisement for Infor CloudSuite software. Text: "No two clouds should be alike." Images of a red office chair and a yellow lamp. Logos for CloudSuite Business and CloudSuite Public Sector. Infor logo and website: infor.com/cloud

FROM PAGE ONE

CASH

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short-term rewards.

Laurence Fink, chief executive of BlackRock Inc., the world's largest money manager, argued as much in a March 31 letter to S&P 500 CEOs. "More and more corporate leaders have responded with actions that can deliver immediate returns to shareholders, such as buybacks or dividend increases, while underinvesting in innovation, skilled workforces or essential capital expenditures necessary to sustain long-term growth."

An analysis conducted for The Wall Street Journal by S&P Capital IQ shows that companies in the S&P 500 index sharply increased their spending on dividends and buybacks to a median 36% of operating cash flow in 2013, from 18% in 2003. Over that same decade, those companies cut spending on plants and equipment to 29% of operating cash flow, from 33% in 2003.

At S&P 500 companies targeted by activists, the spending cuts were more dramatic. Targeted companies reduced capital expenditures in the five years after activists bought their shares to 29% of operating cash flow, from 42% the year before, the Capital IQ analysis shows. Those companies boosted spending on dividends and buybacks to 37% of operating cash flow in the first year after being approached, from 22% in the year before.

Dividend boost

While billion-dollar stock buybacks draw headlines, dividend increases also are a big factor, according to data from Moody's Investors Service. At the 400 non-financial U.S. companies that Moody's rates as investment grade, the median percentage of cash spent on dividends rose to 11.9% of earnings before interest, taxes, depreciation and amortization, or Ebitda, in the third quarter of last year, from 9.4% in 2013, to the highest percentage since at least 2005.

Companies ranging from the industrial conglomerate DuPont Co. to Apple Inc. are sending more of their cash to their shareholders after coming under pressure from activists. General Motors Co. announced a \$5 billion stock buyback in March after investor Harry Wilson and four hedge funds called on the company to return cash to shareholders.

It is too early to know how—or whether—the shift will affect the overall economy.

Some economists predict an investment reduction will mean less growth and fewer jobs. "If investment falls, then you're losing demand in the economy, you're losing expenditures, you're losing economic stimulus," says Steven Fazzari, an economist at Washington University. "That's hurting jobs."

Other economists say it is appropriate for companies to focus

on enriching shareholders, who can then decide where to deploy the money. To the extent buybacks and higher dividends push up stock prices, they can contribute to what economists call the wealth effect, where rising asset prices make consumers feel wealthier and more confident about spending their money.

Hedge funds run by activist investors contend companies waste a lot of money that they should send to shareholders instead. One such investor, Carl Icahn, says activism with a long-term focus improves the economy by promoting efficient use of capital. "With many, many exceptions, this economy today is being dragged down by too many mediocre CEOs, and it's dangerous if profitability is going down despite interest rates being at zero," he says.

Business investment ticked up in April but remains sluggish and uneven. In recent years, corporate investment in capital goods, beyond replacing and maintaining existing assets, has grown slowly. While falling technology costs may account for some of the trend, companies have been slow to return to higher investment levels since the financial crisis. "One could argue that this has not been a good recovery for investment," says Christopher Probyn, chief economist for State Street Global Advisors.

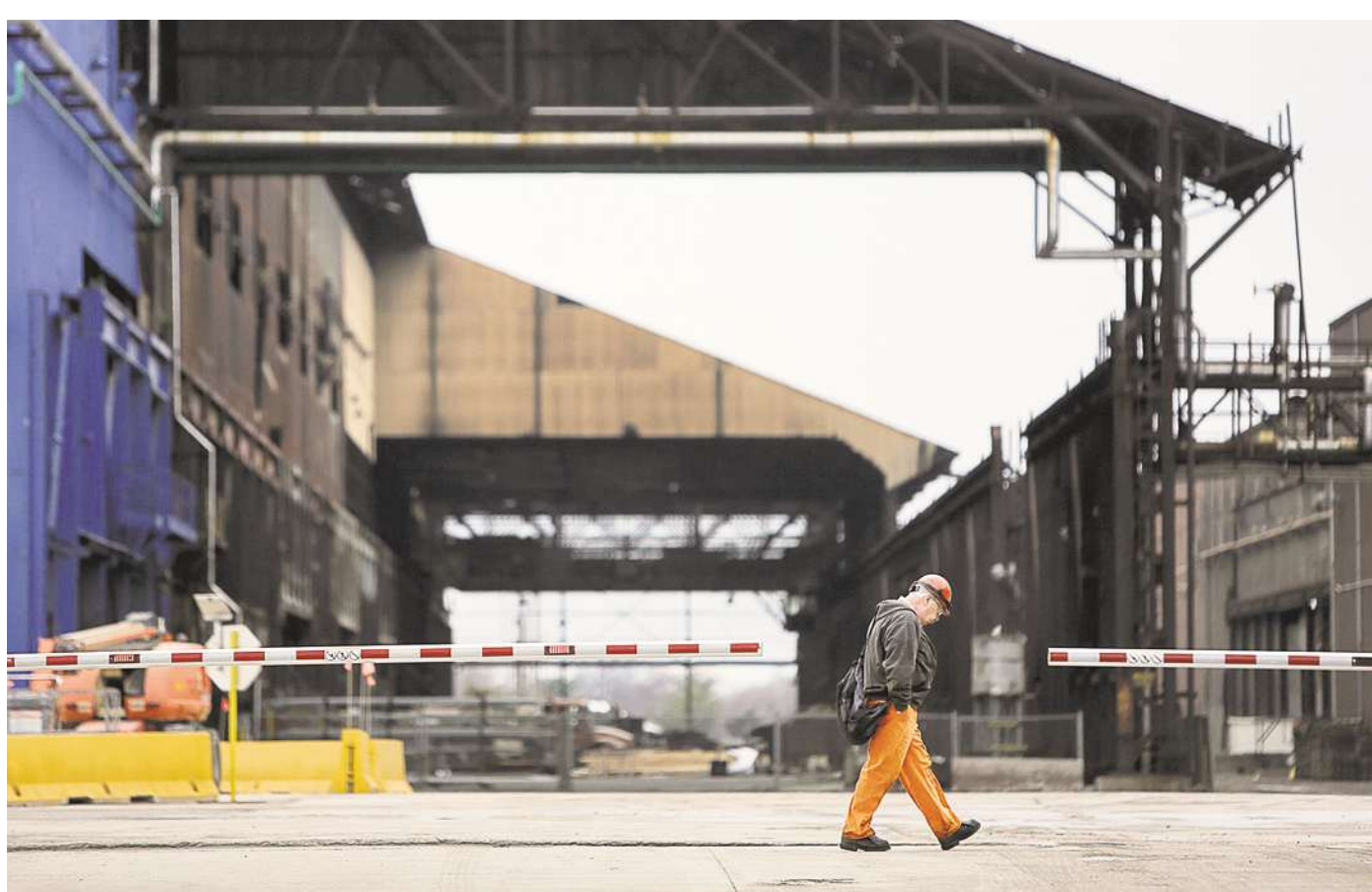
Capital spending by businesses accounts for about one-eighth of all spending in the U.S. economy. Historically, it has been an important driver of long-term growth, as upgrades make workers and companies more productive, says Michael Feroli, chief U.S. economist at J.P. Morgan Chase & Co. Money plowed into dividends and buybacks doesn't disappear from the economy. Its recipients can spend it, too.

But Washington University's Mr. Fazzari says that most stock is owned by the wealthy, who tend to save more of their income. By contrast, he says, many kinds of business investment—from building construction to equipment maintenance and purchases—involve payments to contractors and suppliers who pay wages to middle and low-income workers.

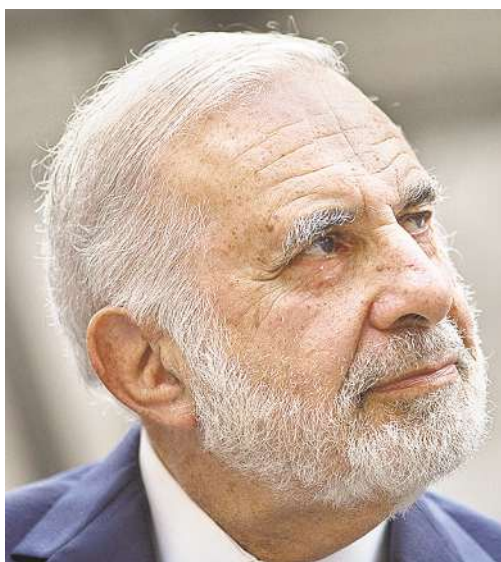
Many companies have made changes while under no direct threat from activists. General Electric Co.'s institutional investors had long urged the conglomerate to scale down its large lending business. In April, GE said it would sell off that business and buy back \$50 billion of its stock.

The company said it chose to plow the proceeds into buybacks because it already had made substantial acquisitions and has invested sufficiently in its existing businesses.

U.S. Steel Corp. isn't buying back stock. But Chief Executive Mario Longhi has imposed a new analytical framework under which every proposed project must be linked to the value it could create for shareholders. The more disciplined approach sets a higher bar for R&D, which used to get a green light if it could simply boost production, says Mr.



Each proposed project at U.S. Steel, whose Granite City, Ill., plant is shown in March, must be linked to the value it could create for shareholders.



'With many, many exceptions, this economy today is being dragged down by too many mediocre CEOs.'

CARL ICAHN, ACTIVIST INVESTOR



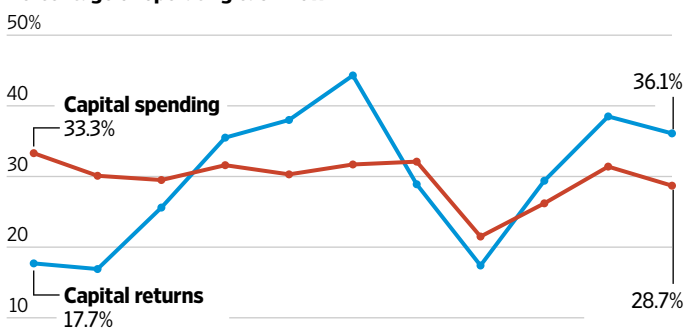
While delivering immediate shareholder returns, executives are 'underinvesting in innovation, skilled workforces or essential capital expenditures necessary to sustain long-term growth.'

LAURENCE FINK, CEO BLACKROCK INC.

Cash Shift

S&P 500 companies are plowing more of their cash flow into dividends and stock buybacks, and less into capital expenditures.

Percentage of operating cash flow



Note: Data are median of S&P 500 companies, as of June 1 of each year.
Source: S&P Capital IQ

Longhi.

U.S. Steel is under pressure from cheaper imported steel and has a high cost structure because its blast furnaces are expensive to turn on and off, says Mr. Longhi. The need to keep the company lean and viable, he says, led to the changes.

Keeping activists at bay, he says, is a side benefit. "If an activist decides to look at our company, I don't think they're going to find a lot of room," he says.

Years of uncertain global demand and revenue growth, combined with corporate-governance changes that have made it easier for dissident shareholders to campaign for board seats, have opened the door to investors with ideas for boosting stock prices.

Activist campaigns

The number of activist campaigns annually has risen 60% since 2010. Last year there were 348, the most since 2008, according to data provider FactSet. An additional 108 were launched in this year's first quarter. Activist funds now control nearly \$130 billion in assets, more than double the amount they had in 2011, according to hedge-fund tracker HFR, giving them the war chests to target even the biggest American corporations.

Activists say they are strengthening companies that tend to overspend and holding managers responsible to their ultimate owners, the shareholders.

Network-equipment maker Ju-

niper Networks Inc. came under pressure last year from Elliott Management Corp., a New York-based hedge fund. The fund criticized Juniper for spending \$7 billion on acquisitions and nearly \$8 billion on R&D when its stock price had underperformed the Nasdaq Composite Index by 63 percentage points between the company's 1999 initial public offering and Nov. 4, 2013.

In February 2014, in an agreement with Elliott that avoided a potential board fight, Juniper appointed two new directors and announced a plan to repurchase stock and cut costs. The company reduced its head count by 7% and repurchased \$2.25 billion of stock last year. This year it appointed two more directors after a joint search, and it plans to buy back almost \$2 billion more in stock through 2016. The company paid its first-ever dividend last year. It has borrowed money to fund some of the buybacks and dividends.

In early 2012, New York investment firm Clinton Group Inc. took a stake in teen-fashion retailer Wet Seal Inc. and began urging a share buyback. In February 2013, the company disclosed it was cutting jobs and expenses and would repurchase \$25 million of stock after appointing four Clinton representatives to its board.

This January, Wet Seal closed two-thirds of its stores and filed for bankruptcy protection. In court documents, executives cited a broader drag on teen retailers as well as missteps that alienated

core customers.

Others contend the buyback ultimately hurt the company. "If we had repurchased...they hadn't done the buyback, that would have given them substantially more flexibility," says Jeff Van Sinderen, an analyst at B. Riley & Co. "In those situations, \$25 million dollars can go a long way."

The debate over R&D spending flared up at chemicals maker DuPont amid pressure from activist Nelson Peltz and his Trian Fund Management LP.

On May 13, DuPont won a proxy fight for board seats, in part by arguing that Trian's suggestions to cut costs and break up the company would get in the way of scientific breakthroughs, a concern that struck a chord with some shareholders and academic commentators. Trian had questioned whether DuPont's current system of R&D can be successful, but said it wouldn't eliminate such spending entirely.

Among other moves, DuPont increased its quarterly dividend in April and has pledged to repurchase about \$4 billion in stock after a planned spinoff of its performance-chemicals business.

The choice between investments and shareholder returns isn't simple. Apple, for example, has paid out more than \$64 billion to shareholders through dividends and stock buybacks since mid-2013, when Mr. Icahn began pressing the company to stop sitting on so much of its cash. Last month, the company boosted its dividend by 11% and increased its

buyback plan by \$50 billion, to \$140 billion.

But Apple also has long pursued a disciplined approach to R&D that has yielded much bigger payoffs than companies that spent far more. Nokia Corp. outspent the iPhone maker on R&D by a 4-to-1 ratio over the decade starting in 2001 but still ended up an also-ran in the cellphone market it once dominated.

"The history of corporate America is littered with a long line of companies that relinquished their leading industry position and spent enormous resources attempting to reinvent themselves and ultimately failed," activist fund Starboard Value LP wrote in a letter to Yahoo Inc. in March as it pushed for a multibillion-dollar buyback at the technology company.

Yahoo later decided to buy back \$2 billion in stock.

The surge of activism has sharpened the debate about the fundamental purpose of a company. Does it exist to satisfy shareholders or does it have an imperative also to try to build for the long term?

The answer is far from settled. If the activists are right, they are stopping companies from throwing good money after bad.

"If they aren't, then we have to worry about the impact," says Yvan Allaire, the executive chairman of the Institute for Governance of Private and Public Organizations. "It has to be a fairly significant impact on the economy."

CODE

Continued from Page One
puterized formulas that automate processes from stock-market sales to social networks.

In March, the online art brokerage Artsy and a digital code gallery called Ruse Laboratories held the world's first algorithm art auction in New York. The Cooper Hewitt, Smithsonian Design Museum, where the auction was held as a fundraiser, is assembling a collection of computer code. In April, the Museum of Modern Art convened a gathering of computer experts and digital artists to discuss algorithms and design.

It is a small step for technology but a leap, perhaps, for the art world. "It is a whole new dimension we are trying to grapple with," said curatorial director Cara McCarty at the Cooper Hewitt museum. "The art term I keep hearing is code."

There's the rub. Computer buffs may thrill to an antique abacus or the motherboard from a vintage Apple II. Last month, one enthusiast paid more than \$1 million for a notebook of no-

tations about thinking machines that belonged to computer pioneer Alan Turing.

An algorithm, though, is an unusually abstract expression of computing's abstract art.

Simply put, an algorithm is a procedure for a process, which can be expressed in a variety of computer languages.

Algorithms rank Web pages, orchestrate ride-sharing, analyze human genes, and catalog the stars, to name just a few functions.

In the eye of the right holder, an algorithm can be elegant or convoluted, straightforward or stylish. But when a digital computer translates a program like qrpf into code that the machine can process, it all becomes zeros and ones.

"It is not quite design; it is not 'it art,'" said Ruse co-founder Fernando Cwilich Gil. "It's invisible, conceptual, kinetic. An algorithm is unique."

To give collectors something to show for their money, people who sell digital art strive for creative ways to make an algorithm tangible.

When Mr. Benitez, chief technology officer of Bardon Cinema, purchased the computer pro-

gram qrpf, he actually got the tie, a commemorative tablet, and a password to access the code at an online software repository.

Another collector at the Artsy auction bought the compatibility calculator used by the online dating site OkCupid. He received two mathematical interpretations of the algorithm drawn on paper and autographed by the four company founders, but no legal right to use or see actual working code.

Indeed, no one yet is really sure what collectors ought to receive when they acquire an algorithm for art's sake—source code, memorabilia, intellectual property rights, or a right to the output of the procedure. It varies depending on the legal status of the algorithm.

"Software is eating the world," said digital designer Chris Maury at Pittsburgh-based Conversant Labs, who recently sold a computer vision algorithm at the auction. "The art world is the next part to be eaten."

For Sebastian Chan, director of digital & emerging media at the Cooper Hewitt museum, an algorithm is the essence of 21st-century design.

Several of the museum's

```

87
88
89   speakArticle = function(article){
90     wordArray = article.match(/S\s*/g);
91     phraseArray = [];
92     var y = 0;
93     var i = 1;
94     length = wordArray.length //set once since we are
95     while (i <= length) {
96       while (i % 40 != 0) {
97         if (wordArray.length > 0){
98           phraseArray[y] += wordArray.shift();
99           i++;
100        }
101        }
102        i++;
103        y++;
104        phraseArray[y] = '';

```

A portion of computer code for an algorithm that recently sold at auction.

showpieces are the products of computer-aided design, but the museum didn't acquire its first computer code until 2013, when Mr. Chan and his colleagues added an iPad music player called Planetary to the collection. Designed in 2011 by Bloom Studio Inc. in San Francisco, the player displays musicians as stars and their albums as orbiting planets. It has been downloaded more than 3.5 million times.

To make it a suitable museum piece, though, Mr. Chan revised his notions of what constitutes a collectible.

"We acquired it as an idea,

rather than as a thing," said Mr. Chan.

To capture the design process, they acquired not only the finished program, but also all its development versions. "We have all the bug reports, all the developer chat, and all the modifications in the code as they were writing it."

MIT student Keith Winstein and his friend Marc Horowitz weren't thinking about art in 2001 when they wrote qrpf at the height of courtroom disputes over enforcement of commercial copy-protection encryption of digital videos.

For them, the code was a

form of civil disobedience. They didn't invent the DVD descrambling procedure, called DeCSS, that they used, nor were they the only programmers at the time who encoded it in some form. In fact, there were at least 42 versions in circulation. Millions of people have downloaded it in one form or another.

"The keen variation we came up with is to make it as short as possible," said Dr. Winstein, a former Wall Street Journal reporter who is now a computer scientist at Stanford University. They rewrote it 77 times, condensing the algorithm from several hundred lines of code down to just six.

To protest copyright restrictions, digital activists printed the qrpf code on coffee mugs and clothing. One group silk-screened it on 100 blue ties. It was the only version of the descrambling algorithm small enough to fit.

Earlier this year, Dr. Winstein donated his qrpf tie and programming notes for the algorithm auction.

"The beauty of the code is that it is a way of thinking," said Mr. Benitez. "The tie itself is such a playful touch."