

Use of articles

adapted by D.Potter - 20161129

practice

Complete the text with either a zero article (-), a definite or an indefinite article

1 [] Sensors are Guiding [] Way
2
3 Thanks to IoT technology, [] future cities vision is becoming [] reality -
4 provided [] decision makers' expectations are based on [] sustainable business
5 model.
6
7 Tourists love Barcelona, and who can blame them? [] urban way of life, []
8 Mediterranean climate, stunning sights, and breathtaking architecture; these
9 are just [] .of [] reasons to pay [] extended stay. [] visitors continue to
10 come in droves, although this is starting to wear [] bit thin for [] locals.
11
12 Yet Spain's second biggest city has another asset that [] average holidaymaker
13 isn't always aware of. In [] past [] .years, [] Catalan metropolis has
14 transformed itself into [] leading "smart city", something which has gone
15 virtually unnoticed by [] general public. If you want to discover more about
16 [] Internet of Things (IoT), and how it is being deployed, Barcelona is []
17 place to experience it firsthand.
18
19 If you're out and about late in [] evening, you will see how [] street lights
20 automatically dim if there aren't [] .:people on [] streets. [] street lights
21 are also fitted with sensors that measure air quality, and are connected to []
22 city's WiFi network, which offers [] free internet access for all.
23
24 If [] car drivers want to be directed to [] nearest available parking space, or
25 if [] water levels in [] fountains in [] public parks are too low or high,
26 [] sensors in Barcelona have got it covered. [] sensors can track [] energy
27 consumption, and regulate [] waste disposal. For instance, [] sensors installed in
28 [] city waste bins are measuring points that determine [] amount of waste.
29 This data is then shared with [] waste disposal trucks to help them plan and
30 optimize their routes - from Big Data to smart data.
31
32 Thanks to [] Barcelona's IoT strategy, [] city has saved 58 million dollars in
33 water costs, has generated 50 million dollars in additional parking fees, and
34 created around 47,000 new jobs, according to [] studies conducted by [] Harvard
35 graduate Laura Adler.
36
37
38 Tackling [] Big Questions
39
40 [] most successful IoT approach has often proven to be [] centralized one,
41 which is what [] Spaniards also opted for. This way, individual projects can
42 be efficiently combined, explains SAP's Holger Tallowitz, [] public sectors
43 expert. "Theoretically, IoT applications can be deployed at any location that
44 already has [] electrical wiring in place," he said.
45
46 Of course, [] specific requirements require [] case-by-case approach. For instance,
47 in Karlsruhe, [] smart street lights also function as charging stations for
48 electric cars (the city implemented [] pilot project "Sm!ght", or
49 smart.city.light, with SAP and energy supplier EnBW - see "Useful Links"), so
50 [] power grid needed to be adapted.
51
52 It is also easy to over-promise on [] impact of [] IoT projects, something that
53 [] major of Columbus, Ohio, Andrew J. Ginther, knows all too well. In early
54 2016, [] US city entered into [] nationwide "Smart City Challenge," competing
55 against 78 other cities. Instead, Ginther's plan, entitled "SmartColumbus"
56 became " [] learning process" for all. In [] press release, Ginther asked for []
57 citizens' patience while his team worked out how to "fulfill [] promises they
58 had made."
59
60 Among other initiatives, Columbus tested out self-driving busses in its 'CMAX'
61 [] public transportation network. [] aim was to help [] residents living in more
62 rural areas get to work quicker, and offer [] reliable service for [] residents to
63 reach [] hospitals and clinics. (Columbus also has [] infant mortality rate
64 above [] national average, and is keen to address this as part of its smart

65 city initiative.)
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67 Inevitably perhaps, [] Internet of Things has become [] subject of hyperbole.
68 It's better to keep things simple, suggests Holger. It depends on [] strategy
69 [] city is looking to pursue, and how it handles data. From [] technical point
70 of view, virtually anything is possible, adds SAP colleague Reiner Bildmayer.
71
72 Joe Blinkley from HCP Marketing, who presented his model of [] "Smart Building"
73 at this year's SAP TechEd in Las Vegas, is [] prime example of this. His "Smart
74 Building" model operates using sensors connected to [] SAP HAN [] Cloud Platform
75 in order to both monitor and control [] building.
76
77
78 [] Limits of Possibility
79
80 Despite [] euphoria surrounding IoT, it's important to remember that not all
81 well-intended IoT projects end up being completed. In Europe in particular,
82 [] rigid administrative regulations and political circumstances can sometimes
83 thwart IoT projects. Sometimes [] complex bidding and approval processes for
84 public projects result in [] delay of innovate ideas.
85
86 [] wheels typically turn [] .slower in [] public sector than they do in
87 industry, often because of [] public scrutiny of how tax money is being spent.
88 According to Holger, "one quarter lasts [] year in [] public sector."
89
90 In addition, Reiner adds that there are often misconceptions regarding []
91 complexity and realization of IoT projects. "[] Negotiations often fail when it
92 comes to [] question who will operate [] solution following its
93 implementation, and how," he explains, speaking from personal experience. He
94 says that [] .decision-makers are not aware of [] fact that [] operational
95 budget is essential, and that this isn't usually subsidized.
96
97 [] Smart cities don't just need smart citizens, but smart pragmatists.
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-- original text --

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