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@InProceedings{REIS2020,
    author="dos Reis, Alexandre Soares
    and Gielen, Elien
    and Wopereis, Ko
    and Pasternak, Marcel
    and Sooäär, Vaido
    and Schneider, Tobias
    and Duarte, Abel J.
    and Malheiro, Benedita
    and Justo, Jorge
    and Ribeiro, Cristina
    and Silva, Manuel F.
    and Ferreira, Paulo
    and Guedes, Pedro",
    editor="Silva, Manuel F.
    and Luís Lima, José
    and Reis, Luís Paulo
    and Sanfeliu, Alberto
    and Tardioli, Danilo",
    title="Smart Companion Pillow -- An EPS@ISEP 2019 Project",
    booktitle="Robot 2019: Fourth Iberian Robotics Conference",
    year="2020",
    publisher="Springer International Publishing",
    address="Cham",
    pages="465--476",
    abstract="This paper describes the design and development of a Smart
Companion Pillow, named bGuard, designed by a multinational and
multidisciplinary team enrolled in the European Project Semester (EPS) at
Instituto Superior de Engenharia do Porto (ISEP) in the spring of 2019.
Nowadays, parents spend most of the day at work and become naturally worried
about the well-being of their young children, specially babies. The aim of
bGuard is to provide a 24-hour remotely accessible baby monitoring service,
contributing to reduce parenting stress. The team, based on the survey of
related products, as well as on marketing, sustainability, ethics and
deontology analyses, developed a remotely interactive Smart Companion Pillow
to monitor the baby's health and room air quality. The collected data, once
it is saved on an Internet of Things (IoT) platform, becomes remotely
accessible. The bGuard pillow, thanks to its shape, reduces the risk of the
baby rolling from back to tummy, lowering the risk of Sudden Infant Death
Syndrome (SIDS).",
    isbn="978-3-030-36150-1"
}

@article{LEE2018,
    title = "Design and Implementation of Monitoring System Architecture for
Smart Bicycle Platform",
    journal = "Procedia Computer Science",
    volume = "134",
    pages = "464 - 469",
    year = "2018",
    note = "The 15th International Conference on Mobile Systems and
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Pervasive Computing (MobiSPC 2018) / The 13th International Conference on
Future Networks and Communications (FNC-2018) / Affiliated Workshops",
    issn = "1877-0509",
    doi = "https://doi.org/10.1016/j.procs.2018.07.182",
    url =
"http://www.sciencedirect.com/science/article/pii/S1877050918311475",
    author = "YeongKyun Lee and Jongpil Jeong",
    keywords = "Remote monitoring, Wireless sensor network, Smart phone
based monitoring, Bicycle monitoring",
    abstract = "This paper proposes the smart phone as a central monitoring
device for the bicycle and the WIFI network as a communication channel
between the smart phone and the sensors. It will show how to implement the
sensor boards with WIFI and relevant firmware, the software on the smart
phone to communicate with the sensor boards and the evaluation results with
the open source software called Goldencheetah. The knowledge in this paper
is not limited to bicycles but can be expanded to any other monitoring
systems using the remote sensors based on smart phone."
}

@article{RANJITH2020,
    title = "Prediction of Exhaust Gas Emission characteristics using Neem
oil blended bio- diesel in diesel engine",
    journal = "Materials Today: Proceedings",
    volume = "21",
    pages = "870 - 875",
    year = "2020",
    note = "International Conference on Recent Trends in Nanomaterials for
Energy, Environmental and Engineering Applications",
    issn = "2214-7853",
    doi = "https://doi.org/10.1016/j.matpr.2019.07.706",
    url =
"http://www.sciencedirect.com/science/article/pii/S2214785319329116",
    author = " Ranjith and V. Velmurugan and S. Thanikaikarasan",
    keywords = "Accelerometer, Diesel engine, Neem oil, Renewable,
Alternative, Viscosity, Volatility",
    abstract = "As a renewable, sustainable and alternative fuel for diesel
engine, biodiesel instead of diesel has been increasingly fuelled to study
its effects on engine performances and emissions. Biodiesel production is a
modern and technological area for researchers due to constant increase in
the prices of petroleum, diesel, and environmental advantages. Increased
environmental awareness and depletion of resources are driving industry to
develop viable alternative fuels from renewable resources that are
environmentally more acceptable. Neem oil is a potential alternative fuel.
The most detrimental properties of neem oils are its high viscosity and low
volatility, and these cause several problems during their long duration
usage in diesel engines. From the review it is found that the use of
biodiesel leads to the substantial reduction in CO2, HC, CO and NOx
emissions."
}

@article{SOBHANI2018,
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```
    title = "Impact of smartphone distraction on pedestrians crossing
behaviour: An application of head-mounted immersive virtual reality",
    journal = "Transportation Research Part F: Traffic Psychology and
Behaviour",
    volume = "58",
    pages = "228 - 241",
    year = "2018",
    issn = "1369-8478",
    doi = "https://doi.org/10.1016/j.trf.2018.06.020",
    url =
"http://www.sciencedirect.com/science/article/pii/S1369847818300998",
    author = "Anae Sobhani and Bilal Farooq",
    keywords = "Head-mounted immersive virtual reality, Pedestrian,
Distracted street crossing, Multi-tasking, Smartphone use, Surrogate
analysis, Smart LED lights safety treatment",
    abstract = "A novel head-mounted virtual immersive/interactive reality
environment (VIRE) is utilized to evaluate the behaviour of participants in
three pedestrian road crossing conditions while 1) not distracted, 2)
distracted with a smartphone, and 3) distracted with a smartphone with a
virtually implemented safety measure on the road. Forty-two volunteers
participated in our research who completed thirty successful (complete
crossing) trials in blocks of ten trials for each crossing condition. For
the two distracted conditions, pedestrians are engaged in a maze-solving
game on a virtual smartphone, while at the same time checking the traffic
for a safe crossing gap. For the proposed safety measure, smart flashing and
color changing LED lights are simulated on the crosswalk to warn the
distracted pedestrian who initiates crossing. Surrogate safety measures as
well as speed information and distraction attributes such as direction and
orientation of participants head were collected and evaluated by employing a
Multinomial Logit (MNL) model. Results from the model indicate that females
have more dangerous crossing behaviour especially in distracted conditions;
however, the smart LED treatment reduces this negative impact. Moreover, the
number of times and the percentage of duration the head was facing the
smartphone during a trial and a waiting time respectively increase the
possibility of unsafe crossings; though, the proposed treatment reduces the
safety crossing rate. Hence, our study shows that the smart LED light safety
treatment indeed improves the safety of distracted pedestrians and enhances
the successful crossing rate."
}

@article{OBAYASHI2020,
    title = "Pilot and Feasibility Study on Elderly Support Services Using
Communicative Robots and Monitoring Sensors Integrated With Cloud Robotics",
    journal = "Clinical Therapeutics",
    year = "2020",
    issn = "0149-2918",
    doi = "https://doi.org/10.1016/j.clinthera.2020.01.001",
    url =
"http://www.sciencedirect.com/science/article/pii/S0149291820300278",
    author = "Kazuko Obayashi and Shigeru Masuyama",
    keywords = "activities of daily living, cloud robotics, communicative
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robot, elderly care, robotics utilization, support services",
    abstract = "Purpose
    This pilot before-after study investigated the possible effects of
communicative robots, used with a sensing system supported by cloud
robotics, in caring for elderly people.
    Methods
    Two elderly women in nursing homes and 4 care workers participated in
the trial. The overnight life rhythm assessments of the study participants
and care workers were surveyed to determine when and how the robots should
be integrated into care. The system consisted of the robot Sota, a
noncontact vital sensor and a sheet-shaped bed sensor. Real-time sensing
data and conversations between the participants and robots were sent to the
servers, prompting a quick verbal response by the robot supported by cloud
robotics.
    Findings
    Care workers devoted 3 h to the maintenance of records during their most
stressful periods. Automatic recording of vital information using robot
sensors can improve the quality of nursing care work. Care workers' stress
levels were maximized when responding to nurse calls. Temporary responses to
nurse calls by the robots may help to effectively reduce the burden on
nursing care workers. Robots can stimulate elderly people to communicate
more with others (P < 0.05). Appropriate vocalization by communicative
robots may prevent the deterioration of quality of life in elderly
individuals.
    Implications
    Communicative robots, used with a sensing system, may stimulate elderly
people to activate a communication link with others and help care workers to
effectively reduce the burden during the night shift. A follow-up study
involving a broader research program on communicative robots and elderly
care would be beneficial."
}

@article{THAPA2019,
    title = "Study on the wintry thermal improvement of makeshift shelters
built after Nepal earthquake 2015",
    journal = "Energy and Buildings",
    volume = "199",
    pages = "62 - 71",
    year = "2019",
    issn = "0378-7788",
    doi = "https://doi.org/10.1016/j.enbuild.2019.06.031",
    url =
"http://www.sciencedirect.com/science/article/pii/S0378778819306309",
    author = "Rita Thapa and Hom Bahadur Rijal and Masanori Shukuya and
Hikaru Imagawa",
    keywords = "Nepal, Earthquake, Temporary shelters, Indoor air
temperature, Thermal insulation, Thermal improvement",
    abstract = "After massive earthquake 2015, thousands of Nepalese who
lost their permanent houses by the hardest hits were forced to live in
makeshift temporary shelters. The field measurement on indoor thermal
environment in five shelters was conducted in one of the district hit by the
```

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earthquake, Lalitpur, in winter. The mean indoor and outdoor air
temperatures during the measured nighttime were found to be 10.3 °C and 7.6
°C, respectively, and the nocturnal indoor air temperature remained below
the lowest acceptable temperature of 11 °C. This result assured that these
shelters are not good for winter and must create various problems. We
therefore analyzed the thermal characteristics of those shelters based on
the measured results in order to seek a possible improvement. The total heat
loss coefficient estimated per floor area in five shelters ranged from 11.3
to 15.2 W/(m2·K); that is thermal insulation was very low. We made a simple
numerical analysis on the variation of indoor air temperature with the
assumption of improved thermal characteristics and thereby found that it
needs to be reduced about 2~7 W/(m2·K) to have the indoor air temperature
higher than 11 °C for 70\% of the whole nocturnal hours. Such reduction of
heat loss was found to be realized by adding affordable materials, e.g.,
cellular polyethylene foam and clothes for respective walls and roof. Thus,
the knowledge obtained from this study should hopefully be applied to actual
improvement of indoor thermal environment in existing shelters and also to a
development for the preparation against future disaster."
}

@MISC{gartner2021,
  author  = "{Gartner}",
  title   = "{Gartner Magic Quadrant for Data Science and Machine Learning
Platforms}",
  url     = "{https://www.gartner.com/en/documents/3998753}",
  urldate = "{March 2021}",
  year    = "{2021}",
  address = "{[Accessed in April 2021]}",
}

@MISC{android41,
  author  = "{Android Open Source Project}",
  title   = "{Android Developers: Android 4.1 APIs}. January 2015. [Accessed
in April, 2017]",
  url     =
"{http://developer.android.com/about/versions/android-4.1.html}",
  urldate = "{May 2014}",
  year    = "{2014}",
  address = "{[Accessed in April 2017]}",
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@MISC{cloudexpo2008,
  AUTHOR  = "{Cloud Expo}",
  title   = "{Twenty-One Experts Define Cloud Computing}",
  url     = "{http://cloudcomputing.sys-con.com/node/612375}",
  urldate = "{October 2013}",
  year    = "{2008}",
  address = "{[Accessed in April 2021]}",
}

@BOOK{bandyopadhyay2013unsupervised,
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```
  title={Unsupervised Classification: Similarity Measures, Classical and
Metaheuristic Approaches, and Applications},
  author={Bandyopadhyay, Sanghamitra and Saha, Sriparna},
  year={2013},
  isbn={978-3-642-32450-5},
  publisher={Springer},
  address = {Berlin, Germany},
  doi = {10.1007/978-3-642-32451-2}
}


@ARTICLE{llorente2009virtual,
  author  ="{Sotomayor, B. and Montero, Ruben S. and Llorente, I.M. and
Foster, I.}",
  journal ="Internet Computing, IEEE",
  title   ="{Virtual Infrastructure Management in Private and Hybrid
Clouds}",
  year    ="{2009}",
  month   ="{Sept}",
  volume  ="{13}",
  number  ="{5}",
  pages   ="{14-22}",
  abstract = {One of the many definitions of "cloud" is that of an
infrastructure-as-a-service (IaaS) system, in which IT infrastructure is
deployed in a provider's data center as virtual machines. With IaaS clouds'
growing popularity, tools and technologies are emerging that can transform
an organization's existing infrastructure into a private or hybrid cloud.
OpenNebula is an open source, virtual infrastructure manager that deploys
virtualized services on both a local pool of resources and external IaaS
clouds. Haizea, a resource lease manager, can act as a scheduling back end
for OpenNebula, providing features not found in other cloud software or
virtualization-based data center management software.},
  doi = {10.1109/MIC.2009.119}
}

@article{Mulder2013428,
    title = "Development of a Motion System for an Advanced Sailing
Simulator ",
    journal = "Procedia Engineering ",
    volume = "60",
    number = "0",
    pages = "428 - 434",
    year = "2013",
    note = "6th Asia-Pacific Congress on Sports Technology (APCST) ",
    issn = "1877-7058",
    doi = "http://dx.doi.org/10.1016/j.proeng.2013.07.030",
    url =
"http://www.sciencedirect.com/science/article/pii/S1877705813010813",
    author = "Fabian A. Mulder and Jouke C. Verlinden",
    keywords = "Sailing",
    keywords = "Dinghy",
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    keywords = "Virtual reality",
    keywords = "Training simulation",
    keywords = "Force feedback",
    abstract = "Abstract To train competitive sailing in a virtual setting,
motion of the boat as well as haptic feedback of the sail lines is
essential. When discussing virtual environments (VEs) the concept of
presence is often used. In this study we develop a sailing simulator motion
system to research what factors contribute to the participants' sensation of
presence when sailing in a VE. The developed simulator includes the
development of a mainsheet force feedback system and a novel motion
platform, connected to a high-quality graphics sailing simulation. In future
research, the developed system will be used to study which sail training
type can be performed in simulated environments, and if the system can be
used as a valid testbed for perception-action experiments."
}

@MISC{data_2022,
  AUTHOR  = "{Our World Data}",
  title   = "{Population growth during all the human history}",
  url     = "{https://ourworldindata.org/grapher/population}",
  urldate = "{February 2023}",
  year    = "{2022}",
  address = "{[Accessed in February 2023]}",
}
@MISC{dataworldbank_2022,
  AUTHOR  = "{The World Bank}",
  title   = "{Population growth the last 70 years}",
  url     = "{https://data.worldbank.org/indicator/SP.POP.TOTL}",
  urldate = "{February 2023}",
  year    = "{2021}",
  address = "{[Accessed in February 2023]}",
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@MISC{pickford_2021,
title={Tiny living space in Japan: How to make the most of a small home},
url={https://gogonihon.com/en/blog/tiny-living-spaces-in-japan-how-to-live-i
n-a-little-space/},
journal={Go! Go! Nihon},
author={Pickford, Lucy},
year={2021}
}

@MISC{nations_2022,
title={Welcome to the United Nations},
url={https://www.un.org/development/desa/publications/2018-revision-of-world
-urbanization-prospects.html},
journal={United Nations Website},
author={Nations, United},
year={2018}
}
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@article{aachen2019,
title = {Introducing a methodology for smartification of products in
manufacturing industry},
journal = {Procedia CIRP},
volume = {81},
pages = {228-233},
year = {2019},
note = {52nd CIRP Conference on Manufacturing Systems (CMS), Ljubljana,
Slovenia, June 12-14, 2019},
issn = {2212-8271},
doi = {https://doi.org/10.1016/j.procir.2019.03.040},
url = {https://www.sciencedirect.com/science/article/pii/S2212827119303452},
author = {Günther Schuh and Violett Zeller and Jan Hicking and Anne
Bernardy},
keywords = {Smart products, digital technologies, smartification, product
development process},
abstract = {Smartification and digital refinement of products to enable the
design of smart ones is a pivotal challenge in the manufacturing industry.
Companies fail to design smart products due to missing knowledge of digital
technologies and their integral part in product development processes. This
paper presents a methodology that enables the derivation of digital
functions for smart products through selected cases in manufacturing usage.
We develop a morphology that consists of digital functions for
smartification. In this context, we explained and derived characteristics by
a set of examples regarding smart products in the manufacturing industry.
Our methodology reduces the time spent initiating a development project with
the focus on smartification.}
}

@MISC{office_2023,
title={The Herman Miller Aeron Chair: A Design Classic},
url={https://www.hermanmiller.com/products/seating/office-chairs/aeron-chair
s/},
journal={Office Chairs - Herman Miller},
author={Herman Miller},
author={Herman Miller Inc.},
year={2023},
address = "{[Accessed in March 2023]}",
}

@MISC{altwork_2023,
title={The Altwork Station: A Revolutionary Desk and Chair System for
Professionals},
url={https://altwork.com/},
journal={Altwork},
author={Altwork},
year={2023},
address = "{[Accessed in March 2023]}",
}

@MISC{steelcase_2023,
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title={The Steelcase Gesture Chair: A Highly-Adjustable Office Chair for
Ultimate Comfort},
url={https://www.steelcase.com/products/office-chairs/gesture/},
journal={Steelcase},
author="{Steelcase Inc.}",
year={2023},
address = "{[Accessed in March 2023]}",
}

@MISC{vari_2023,
title={The Varidesk ProDesk 60 Electric: A Sit-Stand Desk That Adapts to
Your Needs},
url={https://www.vari.com/eu/en},
journal={Varidesk},
author="{Varidesk LLC.}",
year={2023},
address = "{[Accessed in March 2023]}",
}

@MISC{ikawa_2023,
title={Kelvin Home Coffee Roaster},
url={https://www.ikawacoffee.com/products/kelvin-home-coffee-roaster},
journal={Ikawa},
author="{Ikawa Ltd.}",
year={2023},
address = "{[Accessed in March 2023]}",
}

@MISC{herman_miller_2023,
title={Live OS: A Smart Furniture System for the Modern Workplace},
url={https://www.hermanmiller.com/products/workspaces/desks-tables/live-
os/},
journal={Herman Miller},
author="{Herman Miller Inc.}",
year={2023},
address = "{[Accessed in March 2023]}",
}

@MISC{oriliving_2023,
title={Ori Expandable Apartments},
url={https://www.oriliving.com/},
journal={Ori Living},
author="{Ori Design Studio}",
year={2023},
address = "{[Accessed in March 2023]}",
}

@MISC{sobro_2023,
title={The Sobro Smart Coffee Table: A Centerpiece for the Modern Living
Room},
url={https://sobrodesign.com/products/sobro-coffee-table},
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journal={Sobro},
author={StoreBound LLC.},
year={2023},
address = "{[Accessed in March 2023]}",
}

@MISC{koble_2023,
title={Smart Desks},
url={https://kobledesigns.com/product-category/home-office/smart-desks/},
journal={Koble Designs},
author={Koble Designs},
year={2023},
address = "{[Accessed in March 2023]}",
}

@MISC{ikea_2023,
title={SYMFONISK Table Lamp with WiFi Speaker},
url={https://www.ikea.com/us/en/p/symfonisk-speaker-lamp-w-wi-fi-glass-shade
-white-s79478292/},
journal={IKEA},
author={Inter IKEA Systems B.V.},
year={2023},
address = "{[Accessed in March 2023]}",
}

@MISC{Humanscale_2023,
title={Float Table},
url={https://www.humanscale.com/products/standing-desks/float-table},
journal={Humanscale},
author={Humanscale},
year={2023},
address = "{[Accessed in March 2023]}",
}

@MISC{Varidesk_2023,
title={Pro Plus 36},
url={https://www.vari.com/eu/en/sit-stand-converter-varidesk-pro-plus-36/DC-
PP36.html},
journal={Varidesk},
author="{Varidesk LLC}",
year={2023},
address = "{[Accessed in March 2023]}",
}

@MISC{Fellowes_2023,
title={Professional Series Back Support.},
url={https://www.fellowes.com/us/en/products/product-
details.aspx?prod=803760},
journal={Fellowes Brands},
author="{Fellowes Brands}",
year={2023},
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address = "{[Accessed in March 2023]}",
}

@misc{urbanareas,
    author = {Hannah Ritchie and Max Roser},
    title = {Urbanization},
    journal = {Our World in Data},
    year = {2018},
    url = {https://ourworldindata.org/urbanization},
    address = "{[Accessed in March 2023]}",
}

@MISC{smarthomemarket_2021,
title={Smart Home Market - Global Forecast to 2026},
url={https://www.marketsandmarkets.com/Market-Reports/smart-homes-and-assisted-living-advanced-technologie-and-global-market-121.html},
journal={MarketsandMarkets},
author="{MarketsandMarkets}",
year={2021},
address = "{[Accessed in March 2023]}",
}

@MISC{japanpopulation,
title={Japan: Urban and rural population},
url={https://www.statista.com/statistics/610763/japan-urban-rural-population/},
journal={Statista},
author={Statista},
year={2023},
address = "{[Accessed in March 2023]}",
}

@MISC{statista_2022,
title={Smart Home - Americas: Statista market forecast},
url={https://www.statista.com/outlook/dmo/smart-home/americas},
journal={Statista},
author={Team, Statista},
year={2022}
}

@InCollection{sep-ethics-environmental,
author={Brennan, Andrew and Lo, Norva Y. S.},
title={Environmental Ethics},
booktitle={The {Stanford} Encyclopedia of Philosophy},
editor={Edward N. Zalta},
howpublished={\url{https://plato.stanford.edu/archives/sum2022/entries/ethics-environmental/}},
year={2022},
edition={{S}ummer 2022},
publisher={Metaphysics Research Lab, Stanford University}
}
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@article{environment_2022
title="Environmental ethics, green innovation, and sustainable performance: Exploring the role of environmental leadership and environmental strategy",
journal="Journal of Cleaner Production",
volume="378",
year="2022",
issn="0959-6526",
doi="https://doi.org/10.1016/j.jclepro.2022.134639.",
url="(https://www.sciencedirect.com/science/article/pii/S0959652622042111)",
author="Junaid Aftab, Nabila Abid, Huma Sarwar, Monica Veneziani",
keywords="Environmental ethics; Green innovation; Social performance; Economic performance; Environmental performance; Manufacturing industry",
abstract="The environmental pollution and degradation of natural resources issues are worsening with every passing day and companies need to take immediate action to save the environment. Due to this reason, the current study intended to explore the mediating role of green innovation in corporate environmental ethics and sustainable performance relationship. Additionally, multiple moderating effects 1). Environmental leadership in corporate environmental ethics and green innovation relationship, 2). Environmental strategy in green innovation and sustainable performance nexus was also explored. The multisource data (N = 404) were collected from the managerial-level employees of manufacturing companies in Pakistan using the survey method. We used the “structural equation modeling” technique to examine the proposed hypotheses. The results demonstrated that green innovation mediates the relationship between corporate environmental ethics and sustainable performance (social, economic, and environmental). In addition, environmental leadership positively moderates corporate environmental ethics and green innovation nexus. Furthermore, environmental strategy strengthens the green innovation effect on environmental and economic performance. Overall, the study findings supported almost all direct, indirect, and moderating hypotheses and provided some novel theoretical and practical implications."
}

@MISC{tutorialspoint,
title={Engineering Ethics - Introduction},
url={https://www.tutorialspoint.com/engineering_ethics/engineering_ethics_introduction.htm},
journal={Tutorialspoint},
author="{unknown}",
year={unknown},
address = "{[Accessed in March 2023]}",
}

@MISC{sale_ethics,
title={8 Ethical Behaviors to Live and Sell by in Sales},
url={https://blog.hubspot.com/sales/sales-ethics},
journal={blog.hubspot},
author="{Lestraundra Alfred}",
year={2019},
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address = "{[Accessed in March 2023]}",
}
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