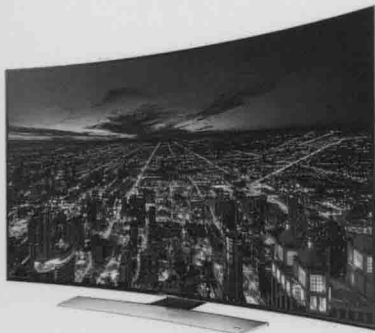


# CONSUMER PRODUCT INNOVATION AND SUSTAINABLE DESIGN

The evolution and impacts of  
successful products

ROBIN ROY



ROUTLEDGE

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*Robin Roy*

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# LIST OF ILLUSTRATIONS

## Figures

- 1.1 *Which?* Best Buy and other product assessment logos
- 1.2 Ordinary, high-wheel or penny-farthing bicycle, 1870s
- 1.3 Third prototype Rover safety bicycle with diamond frame and solid tyres, 1885
- 1.4 Classic diamond-frame sports bicycle with an alloy steel frame, multiple derailleur gears and 27-inch wheels with aluminium rims, 1990s
- 1.5(a) Alex Moulton with three models of his small-wheel bicycle with rubber suspension, 1967
  - (b) Alex Moulton riding his 'advanced engineering' space frame bicycle, 1983
- 1.6 Brompton folding bicycle
- 1.7 Streamlined human-powered vehicle (HPV)
- 1.8 Mike Burrows' Mark 1 racing bicycle with aerodynamic monocoque (single shell) carbon fibre frame, 1985
- 1.9 Hybrid bicycle, a general purpose or commuting bicycle that combines features of mountain, road and touring bikes, c. 2005
- 1.10 Bianchi Sempre road and racing bicycle with aerodynamic carbon fibre frame, 2012
- 1.11 Smart electrically-assisted bicycle
- 2.1(a) Jacob Schaffer's washing machine, Germany, 1766
  - (b) Edward Beetham's washing mill, England, 1790s
- 2.2(a) Improved Doty hand-operated squeezer washing machine, New York, c. 1870
  - (b) 'Pioneer Masher' manual washing machine and mangle, Accrington, England, 1903

✕ List of illustrations

- 2.3 Thor washing machine, Chicago, c. 1907, designed by Alva J. Fisher and patented 1910, was one of the first electric washing machines. The exposed electric motor under the tub sometimes caused hazardous electric shocks
- 2.4 Electric washing machine with a powered wringer, made by Beatty Bros of Canada, c. 1920. The wooden tub with a 4-legged rotating wooden dolly inside is like those of earlier manual machines. The exposed motor could be hazardous
- 2.5 Maytag Model 18 top-loading washing machine with wringer, USA, 1939
- 2.6 The first mass-produced, fully automatic washing machine, the Bendix Home Laundry was first launched in 1937
  - (a) Scott's automatic washing machine patent
  - (b) Bendix automatic, c.1945
- 2.7 Modern Indian twin tub washing machine, 2015
- 2.8 Some automatic washing machines on UK market in 1966
  - (a) Bendix
  - (b) English Electric horizontal axis front loading
  - (c) Hoover Keymatic inclined axis front loading
  - (d) Hotpoint vertical axis top loading
- 2.9 Some *Which?* Best Buy automatic washing machines on UK market in 1994. Left to right: Candy Aquaviva; Zanussi washer drier; Zanussi Jetsystem
- 2.10 Percentage contributions of the production, distribution, use and disposal phases of a washing machine's life cycle to its environmental impacts, excluding detergent manufacture and distribution. (Adapted from Roy (2006) p. 132 and Durrant *et al.* (1991) Figure 2.3, p. 37)
- 2.11(a) Industrial design sketch of the Hoover New Wave washing machine controls
  - (b) The New Wave range was awarded the first EU Ecolabel
- 2.12(a) The EU washing machine energy label (2010 on) provides energy and spinning efficiency ratings, annual electricity and water use and noise output
  - (b) Bosch washing machine with an A+++ energy label, 2014
- 2.13(a) Samsung Ecobubble™ washing machine, 2013
  - (b) Dyson Contrarotator™ washing machine with two drums that rotated in opposite directions to simulate hand-washing, 2000–2005
- 2.14 Xeros large commercial washer that uses small amounts of water and detergent to lift dirt from the wash, which is then absorbed and removed by reusable polymer beads
- 2.15 Concept design for a sustainable laundry service (From a draft version of Dewberry *et al.*, 2013, Figure 3)
- 3.1 Pre-electric lamps
  - (a) nineteenth-century oil lamp

- (b) Ancient to nineteenth-century oil and gas lamps
- 3.2 Thomas Edison's patent drawing and application for an improvement in electric lamps, patented 27 January 1880
- 3.3(a) Early twentieth-century tungsten filament incandescent light bulbs
  - (b) Early twenty-first-century clear and frosted tungsten filament incandescent (GLS) light bulbs with bayonet and screw fittings yes, 'Modern incandescent light bulbs'
- 3.4 Modern tungsten halogen incandescent light bulbs
  - (left) GLS light bulb with tungsten halogen capsule
  - (right) Tungsten halogen reflector spot lamp with GU10 connector
- 3.5 Circular fluorescent lamps – decorative, but much less common than straight fluorescent tubes
- 3.6 Compact fluorescent lamps
  - (a) Philips SL18, the first mass-produced CFL, 1980
  - (b) Modern CFL lamps with screw and bayonet connectors and CFL spot lamp with GU10 connector
- 3.7 LED lamps with standard screw and bayonet connectors and 16-LED spot lamp (a direct replacement for a GU10 halogen spot lamp)
- 3.8(a) Stick CFL desk lamp
  - (b) LED wardrobe light that comes on automatically when the door is opened
- 3.9 Life cycle energy use of GLS and halogen incandescent, CFL and LED lamps (Adapted from: US DOE, 2013a)
- 3.10 EU Energy Labels for halogen incandescent (C-class), CFL (A-class) and LED (A+class) light bulbs
- 3.11 Philips DNA Helix concept chandelier using organic light emitting diode (OLED) panels, 2012
- 4.1 Baird Televisor electro-mechanical television receiver with a rotating disc scanner and 3-inch screen, 1930
- 4.2 Baird T-23 15-inch cathode ray tube mirror lid TV, 1938
- 4.3(a) RCA CT-100 15-inch colour television, one of the first American receivers with a colour CRT, 1954
  - (b) Sony 18-inch colour TV with Trinitron cathode ray tube, c. 1970
- 4.4(a) JCV Video Home System (VHS) video-recorder, 1976
  - (b) Sony Betamax video-recorder, 1979
- 4.5 Sky+ personal digital video recorder (PVR). It can record two standard or high-definition programmes on its 500GB to 2TB hard disk while showing a third programme, as well as providing access to TV catch-up and Internet TV
- 4.6 RCA TRK-9, a TV receiver with a 9-inch diagonal cathode ray tube and radio housed in 'streamlined' veneered wooden cabinet, 1939
- 4.7(a) Baird 12-inch 405-line black and white CRT TV, 1949. It was available as the Townsman, for reception close to the transmitter, and the Countryman for fringe areas

- (b) Bush TV12 with 9-inch 405-line black and white CRT and Bakelite case, 1948
- (c) GEC TV set with 14-inch 405-line black and white CRT, 1955
- 4.8 Sony 'big box' 32-inch widescreen cathode ray tube colour TV, c. 2005
- 4.9(a) Panasonic 32-inch screen flat panel liquid crystal display (LCD) TV, 2005
- (b) Samsung 40-inch screen light emitting diode (LED) Smart TV, 2013.  
Note the narrow screen border compared to Figure 4.9a
- 4.10(a) Samsung 22-inch (54 cm) screen LED Smart High Definition TV, 2014
- (b) The Samsung 22-inch TV's 'A' energy efficiency rating, power and annual energy use on its EU Energy Label
- 4.11 Samsung 55-inch '4K' Ultra-High Definition curved screen LED smart TV
- 5.1 Bissell carpet sweeper late 1870s (middle left) and various designs of late nineteenth and early twentieth-century bellows or bicycle pump-operated manual vacuum cleaners
- 5.2 Booth's 'Puffing Billy' horse-drawn vacuum cleaner, 1901. The machine was parked outside the house to be vacuumed and the cleaning hoses fed through the windows. It was originally powered by an oil engine inside the carriage; an electric motor was substituted later
- 5.3(a) Spanger's vacuum cleaner patent, 1908
- (b) Hoover (Electric Suction Sweeper Company) Model 0, 1908
- 5.4 (left) British Magic Appliances vacuum cleaner; (middle and right) Hoover upright cleaners, 1919 model and Hoover Junior 1936
- 5.5 Electrolux Model V cylinder vacuum cleaner, 1921
- 5.6 Electrolux Model XXX (30) cylinder cleaner, 1937, styled by American industrial designer, Lurelle Guild
- 5.7(a) Advertisement for Hoover Model 29 in bright red, 1950, 'styled by Henry Dreyfuss'
- (b) Hoover Constellation 1958, which floated on a cushion of its own exhaust air and remained in production until 1980. The distinctive spherical design again by Henry Dreyfuss reflected late 1950s American concerns with space following the launch of the Russian Sputnik 1 satellite in 1957
- 5.8 Typical late 1970s vacuum cleaners on the British market:
  - (a) Hoover Dirtsearcher Junior U1016
  - (b) Hoover Convertible U5010
  - (c) Electrolux Automatic 345
  - (d) Hoover Celebrity S3005, an updated version of the floating Constellation (Figure 5.7b)
- 5.9 Recent model of the hand-held, rechargeable battery-powered Black and Decker Dustbuster, first launched in the USA in 1979
- 5.10(a) (left) Dyson's first production cleaner with concentric cyclones, the G-Force, made in Japan; (centre) the first prototype in which the

- cyclones were placed side by side; (right) a few of the models used by Dyson to develop the best shape of cyclone
- (b) Dyson's pink and lavender G-Force dual cyclone vacuum cleaner, 1986, made and sold in Japan
- 5.11(a) Dyson DC01 Dual Cyclone bagless upright cleaner, made and launched in the UK in 1993
- (b) Dyson DC02 bagless cyclonic cylinder cleaner, 1995
- 5.12 Dyson DC24 multi-floor lightweight upright cleaner with several root cyclones and highly manoeuvrable Dyson Ball™ steering, 2012
- 5.13(a) Form follows function: Dyson DC75 Cinetic Big Ball with multiple oscillating tip cyclones to remove the finest particles without a filter, 2015
- (b) Function plus sleek styling: Miele Dynamic U1 Powerline upright bagged vacuum cleaner, with a 1500W motor that meets the requirements of the EU Energy Label, 2014
- 5.14 Dyson 360 Eye™ robot vacuum cleaner, 2015
- 6.1 Most telephone communications in developing and newly industrialised countries, such as India, are by mobile phone
- 6.2 Motorola 4500x 'transportable' car phone, 1988
- 6.3 The first commercially available hand-held portable mobile phone, the Motorola DynaTAC 8000X, 1983. This is a 1984 model with a red LED display
- 6.4 The first mass-produced 'candy bar' mobile phone was the Nokia 1011 GSM digital phone, 1992. This is a 1993 model
- 6.5 The first clamshell phone, the Motorola StarTAC, 1996
- 6.6 Desirable Nokia 8110i GSM slide phone, 1997, which featured in the film *The Matrix*
- 6.7(a) Nokia 3310 GSM candy bar phone, of 2000 was an iconic design that sold 126 million units worldwide
- (b) Nokia 1100 basic GSM candy bar phone 2003, designed with a dustproof case for developing countries, sold about 250 million units worldwide
- 6.8 The highly fashionable Motorola RAZR V3 ultra-slim clamshell phone, 2004
- 6.9 The first touchscreen mobile phone was the 2G Apple iPhone, launched in 2007 with a 3.5-inch screen. (left) a 3G version of the original iPhone, 2008 (right) a 5.5 inch screen iPhone 6 Plus, 2014
- 6.10 Dominant touchscreen smartphone designs
- (a) 5.5 in iPhone 6 Plus, 2014
  - (b) rivalled by one of the Samsung Galaxy range, the S5, 2014
- 6.11 Blackberry Q10 smartphone with physical QWERTY keyboard
- 6.12 Nokia 100 budget phone, 2013
- 6.13 Mobile handset design forms appearing in a sample of the magazine *T3 (Tomorrow's Technology Today)* between 1996 and 2009 showing the divergence and convergence of designs (From Muir Wood, 2010, p. 132)



- 6.14 Design award winning Sony Ericsson T610 camera-phone, 2003
- 6.15 Spoof advertisement from the Gaia Foundation highlighting the negative impacts involved in the extraction of materials for making mobile phones. The ‘apps’ on this phone are: resource depletion, ecosystem destruction, land grabbing, inbuilt obsolescence, toxic waste, conflict minerals, poor working conditions
- 6.16 Google Glass with an optical head-mounted display, providing many computer and communications functions in a wearable product, especially when paired with a smartphone. It was available from 2013 to 2015 when the ‘Project Glass’ experimental phase ended and new versions were under development
- 7.1 Typical pattern of product and process innovation over time. (Adapted from Utterback and Abernathy (1975), p. 645 and Abernathy (1978), p. 72)
- 7.2 Technological S-Curve: diminishing improvements in performance over time result in competition between, and eventual displacement of, existing dominant designs by innovative products based on a disruptive technology (Adapted from Utterback (1994), p. 160.)
- 7.3 Philips LaserDisc player (1982) failed to catch on because of its higher price and perceived lack of relative advantage over videocassette recorders (VCRs)
- 7.4 Different approaches to, or levels of, designing for the environment. (Adapted from Brezet (1997), p. 22 and Roy (2006), p. 90)

## **Tables**

- 3.1 Advantages and disadvantages of different energy-efficient lamps
- 3.2 Efficiency, life and life-time cost of typical electric lamps

# PREFACE

I have always been interested in the design of things, but as a child I was especially fascinated by the historical technologies and products in the Children's and Domestic Appliances galleries at the Science Museum in London. Later this led me to study undergraduate mechanical engineering and then take a master's degree and PhD in design technology at Manchester University under Christopher Jones, one of the originators of systematic design methods and a broad systems approach to design. After briefly working as a trainee in engineering companies in Britain and Sweden, I was fortunate to be appointed in 1971 as one of the first lecturers in Design at the newly founded Open University (OU). The OU pioneered teaching large numbers of home-based adult students via specially produced books, radio and television programmes, supported by local tutorials and residential schools. The Design group at the OU developed an interdisciplinary and project-based approach to teaching design at a distance, which it has maintained to the present day, but now using online multimedia as well as printed books. For my research I founded the Design Innovation Group in 1979, which focused on investigating the successful practice and management of product design and technical innovation in industry and on developing the new field of sustainable design. This research often arose from the work involved in developing the OU distance learning courses and making the associated television programmes, audios and videos.

As part of my interest in products and their evolving design, I subscribed to the British consumer magazine, *Which?* This publication provides a unique record of how consumer products available in Britain have changed over almost 60 years. In my position as an Emeritus Professor of Design and Environment at the OU, I had the opportunity to make use of my *Which?* archive. The idea for this book was to use my *Which?* collection as a way of tracking the innovation and evolution of a number of consumer durable products, such as washing machines, vacuum cleaners, television equipment and mobile phones. However, I quickly realised

that although *Which?* was a useful basic source, tracking the evolution of such products from their invention in the nineteenth and early twentieth centuries to the present required a considerable amount of additional research and scholarship making use of many other printed and online resources and visiting museums and shops. Arising from my work on sustainable design I was also interested in discovering whether, why and when environmental concerns and regulations influenced the design of these products; what socio-economic and cultural factors influenced their development; and what the products' impacts on the environment and society were.

My aim in writing the book was to use the product case studies to provide general conclusions about patterns of technical innovation and design evolution and the extent to which these patterns fitted existing theories of innovation and design. A more practical aim, linked to my earlier work on successful design and innovation, was to make use of the empirical information from the product case studies to provide lessons and guidelines for designers, engineers, innovators, managers and marketers, as well as for educators of these professions. I hope that these groups will find the book useful as well as interesting.

In writing the book I have discovered that there are many individuals who are so fascinated with certain technologies and products that they collect them, make websites cataloguing and describing them, and even set up museums to show them to the public. There are collections, websites and museums for washing machines, vacuum cleaners, lamps, televisions and mobile phones, which I have found to be most valuable in writing this book. I hope that such collectors, and people who are simply curious about the history and design of consumer products, might find this book interesting and useful too.

*Robin Roy*

*Milton Keynes, February 2015*

For June, Alex, Linda, Ella, Joe and Olivia



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# CONTENTS

<i>List of illustrations</i>	ix
<i>Preface</i>	xv
<i>Acknowledgements</i>	xix

<b>CHAPTER 1</b>	
<b>INTRODUCTION: PATTERNS OF INNOVATION</b>	<b>1</b>
Why this book?	2
How <i>Which?</i> tests consumer products	2
The consumer product case studies	4
Innovation and evolution of the bicycle	4
Theories of technological and design change	14
Practical lessons for product developers	17
References	17

<b>CHAPTER 2</b>	
<b>WASHING MACHINES</b>	<b>21</b>
Washing machine technology and design	22
Environmental impacts and regulation	29
Laundry innovation	35
Social influences and impacts	37
Future developments	39
The pattern of innovation	44
References	44



<b>CHAPTER 3</b>	
<b>LAMPS AND LIGHTING</b>	<b>47</b>
Electric lamp technology	47
Lamp and lighting design	59
Environmental impacts and regulation	60
Social influences and impacts	64
Future developments	65
The pattern of innovation	68
References	68
<b>CHAPTER 4</b>	
<b>TELEVISION</b>	<b>71</b>
Television technology	71
Television design	83
Environmental impacts and regulation	87
Social influences and impacts	90
Future developments	92
The pattern of innovation	93
References	94
<b>CHAPTER 5</b>	
<b>VACUUM CLEANERS</b>	<b>97</b>
Vacuum cleaner technology and design	98
Environmental impacts and regulation	114
Social influences and impacts	115
Future developments	116
The pattern of innovation	117
References	117
<b>CHAPTER 6</b>	
<b>MOBILE PHONES</b>	<b>119</b>
Mobile phone technology	119
Operating systems	124
Mobile phone design	124
Environmental impacts and regulation	132
Ethical and political issues	136
Social influences and impacts	137
Future developments	140
The pattern of innovation	141
References	142