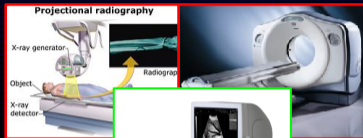


LA FANTASCIENZA CHE DIVENTA REALTA': LA DIAGNOSTICA PER IMMAGINI

Francesco Toso

DIAGNOSTICA PER IMMAGINI

RAGGI X



ULTRASUONI



CAMPI MAGNETICI
RADIOFREQUENZA



RADIOATTIVITA'



1966

Fantascienza



1966

Fantascienza



Esplorando strani, nuovi mondi, entrando in contatto con nuove civiltà, spesso si verificavano svariate tipologie di infortunio ...



1966

Fantascienza



1966

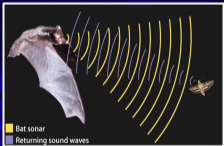
Fantascienza

1970

Realtà

Ecografia

1794: Lazzaro Spallanzani



1880: Pierre & Jacques Curie



Piezoelettricità



1915: Paul Langevin



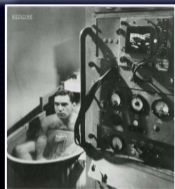
1966

Fantascienza

1970

Realtà

1942: Karl Dussik

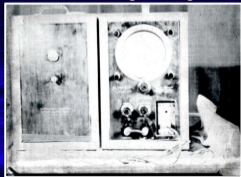


SOUND-WAVE PORTRAIT IN THE FLESH

1950s: Douglas Howry e Joseph Holmes

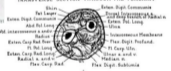
Pionieri dell'ecografia 2D B-mode

1948: George Ludwig

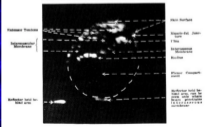


Specific device produces pictures of the human body's soft tissues which are visible to 3 cm

TRANSVERSE SECTION THROUGH MID-FOREARM



MECHANISM OF ULTRASOUND IMAGING OF BLOOD FLOW



1966

Fantascienza

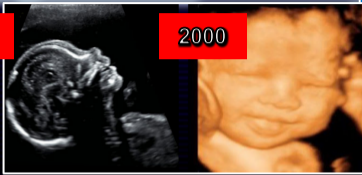
1970

2000

Realtà



'70



2000



'80







1979

Fantascienza

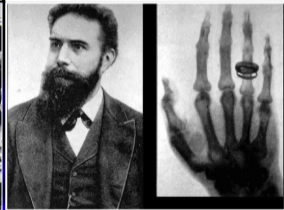
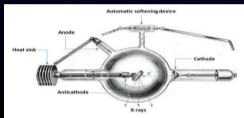


1879

Fantascienza

1895

Realtà



Wilhelm Conrad Röntgen
1845-1923

1895

1979

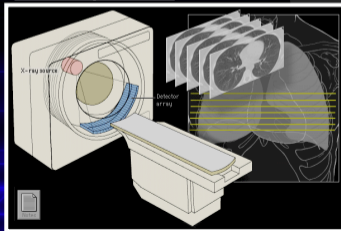
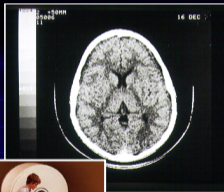
Fantascienza

1895

1974

Realtà

Allan MacLead Cormack e
Godfrey Newbold



1895

1979

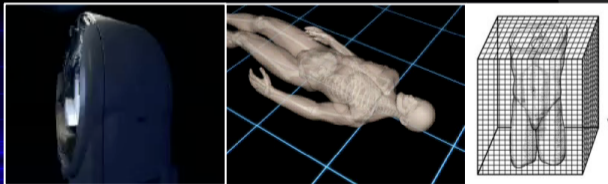
1974

1990-2000

Fantascienza

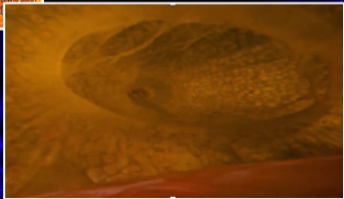
Realtà

Acquisizione volumetrica TC spirale e multistrato



1966

Fantascienza



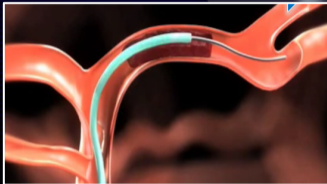
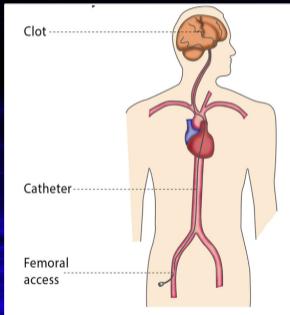
1966

Fantascienza

70

Realtà

Radiologia interventistica Trombolisi - Tromboaspirazione



1966

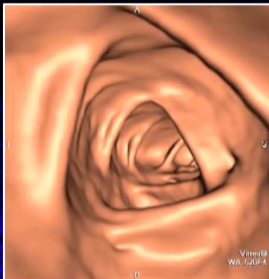
1987

Fantascienza

70

2000

Endoscopia virtuale



Replicatore di materia



Confronting a new 'Era of Duplication'? 3D Printing, Replicating Technology, and the Search for Authenticity in George O. Smith's *Venus Equilateral* Series.

Matthew Hollow, Durham University

(May, 2013)

Other publications of the
Prime Press

THE MEGALOT CRAB

by Philip
A complete operating manual and
instructions for assembly, to be
bound in cloth.

6/3

QUALITY IN A HISTORY OF
SCIENCE

by
A complete operating manual and
instructions for assembly, to be
bound in cloth. The size 1000
100.

6/4

Forthcoming Publications:

These are subject to be approved:

THE TORCH

by
A new collection and set in the
series.

THREE HUNDRED YEARS
HENCE

by
The second in our series of new
collections (English series).



About the Author:

George O. Smith was born in 1915 in
London, England. He was a member of
the British Admiralty and served in the
Royal Naval Air Service during the
Second World War. He was a member of
the Admiralty Staff and was involved in
the development of the first British
jet engine. He was also a member of
the Admiralty Staff and was involved in
the development of the first British
jet engine. He was also a member of
the Admiralty Staff and was involved in
the development of the first British
jet engine.

After the war he spent some time in
the United States and worked for the
United States Navy. He was a member
of the Admiralty Staff and was involved
in the development of the first British
jet engine. He was also a member of
the Admiralty Staff and was involved in
the development of the first British
jet engine. He was also a member of
the Admiralty Staff and was involved in
the development of the first British
jet engine.

About the Artist:

He was a member of the Admiralty Staff
and was involved in the development of
the first British jet engine. He was also
a member of the Admiralty Staff and
was involved in the development of the
first British jet engine. He was also a
member of the Admiralty Staff and was
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in the development of the first British
jet engine. He was also a member of
the Admiralty Staff and was involved in
the development of the first British
jet engine.



Venus
Equi-
lateral
SMITH



PRIME
PRESS



1945 Serie "Venus Equilateral" George O' Smith

1945

1966

Fantascienza



1945

1966

Fantascienza

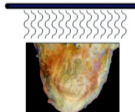
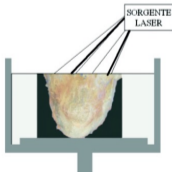
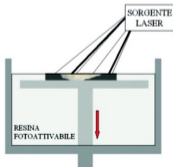
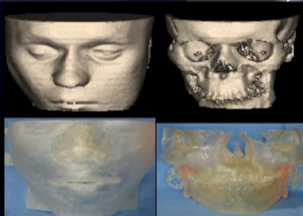
2000

Realtà

La Radiologia Medica - Radiol Med 109: 000-000, 2005
Edizioni Minerva Medica - Torino

Utilità della Tomografia Computerizzata nello studio pre-operatorio della patologia maxillo-facciale con prototipazione rapida e pre-planning chirurgico in realtà virtuale

Francesco TOSO ¹ - Chiara ZUIANI ¹
Maurizio VERGENDO ¹ - Iolanda SALVO ²
Massimo ROBIONY ² - Massimo POLITI ²
Massimo BAZZOCCHI ¹



1945

1966

Fantascienza

2000

Realtà





1968



STANLEY KUBRICK'S
2001:
a space odyssey



1968



Intelligenza
artificiale



1956



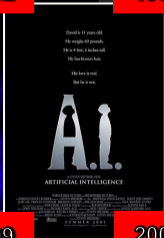
1982



1984



1999



2003

1966

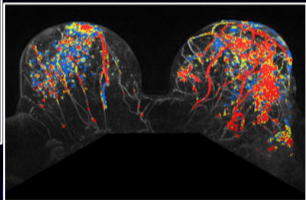
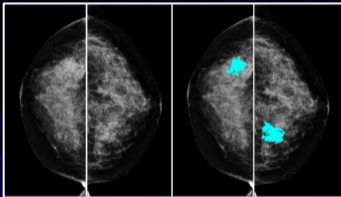
Fantascienza

2000

Realtà

SVILUPPO SISTEMI CAD

“Computer-aided detection”



Radiol med (2007) 112:329–353
DOI 10.1007/s11547-007-0145-5

BREAST RADIOLOGY
SENOLOGIA

CAD systems for mammography: a real opportunity? A review of the literature

Sistemi CAD in mammografia: reale opportunità? Revisione della letteratura

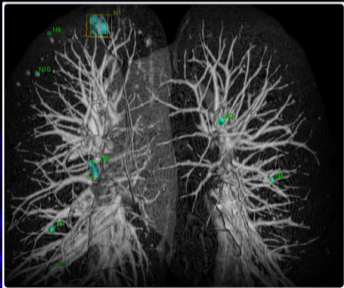
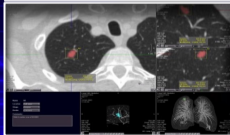
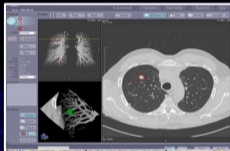
M. Bazzocchi • F. Mazzarella • C. Del Frate • R. Girometti • C. Zulani

1966

Fantascienza
Realtà

2000

SVILUPPO SISTEMI CAD "Computer-aided detection"



1966

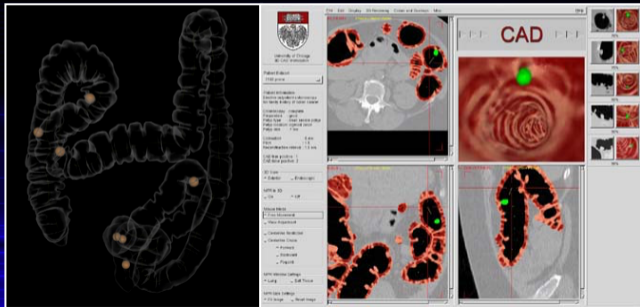
Fantascienza

2000

Realtà

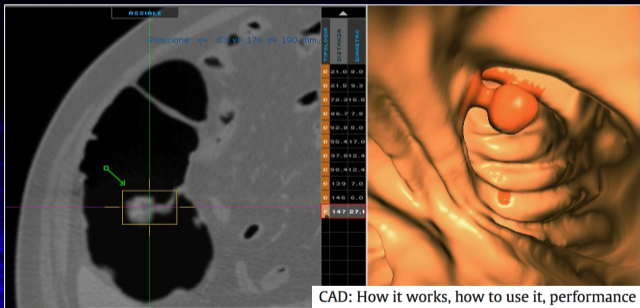
SVILUPPO SISTEMI CAD

“Computer-aided detection”



"I computer sono incredibilmente veloci, accurati e stupidi.
Gli uomini sono incredibilmente lenti, inaccurati e intelligenti.
L'insieme dei due costituisce una forza incalcolabile."

A. Einstein



European Journal of Radiology

European Journal of Radiology 82 (2013) 1171–1176

Daniele Regge^{a,*}, Steve Halligan^{b,1}

^a Institute for Cancer Research and Treatment, Candiolo-Torino, Italy

^b University College Hospital London, London, UK

“La fantascienza non è solo un buon divertimento, ma assolve anche uno scopo serio, che è quello di espandere l’immaginazione umana.”

S. Hawking