# RINCKSIDE VOLUME 31 · 2020

SCIENCE MEDICINE IMAGING ACADEMIA PHILOSOPHY ETHICS SATIRE ADVICE

ISSN 2364-3889

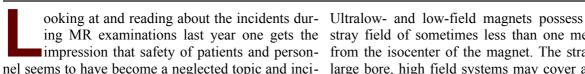
ISSN 2364-3889 • VOLUME 31, 2020

## **CONTENTS**

Rinck PA. Safety first or last? Rinckside 2020; 31, 1	1
Rinck PA. The great data garbage heap Rinckside 2020; 31, 2	3
Rinck PA. Will the Corona crisis clean up health care? Rinckside 2020; 31, 3	5
Rinck PA. Congresses – a feeling of uncertainty • (I) A look back – The case of ECR? Rinckside 2020; 31, 4	7
Rinck PA. Congresses – a feeling of uncertainty • (II) A case in point: ECR and the Corona fallout Rinckside 2020; 31, 5	9
Rinck PA. Speech is silver, but silence is golden Rinckside 2020; 31, 6	11
Rinck PA. To see and to be seen • Teleconsultations and rating sites aren't all good news Rinckside 2020; 31, 7	13

## Safety first or last?

## Peter A. Rinck



dents seem to increase because there is a lack of information and training. The accidents in Sweden have been clearly provoked by thoughtlessness they seem simply self-inflicted.

MR machines are not toys and operating them requires concentration as well as knowing and not forgetting the rules. There is also a lack of hierarchy and strictness of the superiors as there is a lack of due diligence, dutifulness and sense of responsibility by healthcare managers and administrators. If there is a police inquiry in Sweden, these bureaucrats should be included too.

During the last 150 years, thousands of papers focusing on the effects or side effects of magnetic or radiofrequency fields have been published. They can be categorized as incidental and physiological. There is a wide range of incidental dangers that can lead to accidents. They are all caused by human negligence – mostly by staff, occasionally by patients – or the employment of inappropriate or unsuitable equipment or devices.

Incidental hazards are created by the static magnetic field usually covering an ellipsoid region around the isocenter of the magnetic resonance machine. The range of this fringe or stray field depends on the field strength of the system, the type of magnet, and the kind of shielding used. The fringe field around the magnetic resonance system may stretch into adjacent rooms, floors, even gardens and parking places outside the building. It both influences electronic equipment and can be a possible hazard to persons passing by.

Appropriate warning signs must be posted. In this case, warning signs or similar notices should be displayed outside the magnet room, in neighboring rooms on the same floor, and on floors above and below. This danger has been reduced by shielded magnets.

Ultralow- and low-field magnets possess a limited stray field of sometimes less than one meter radius from the isocenter of the magnet. The stray field of large bore, high field systems may cover a radius of 15 or 20 meters, unless the magnet is heavily shielded.

THE ROUND TABLE

**EMRF** 

Three groups of accidents are responsible for more than 90% of all reported injuries to patients and personnel.

The most common hazards are temporary or lasting auditory damages to patients whose ears were not adequately protected, usually at high (1.5 Tesla) or ultrahigh fields (3.0 and 7.0 Tesla). Other hazards are second or third degree burns or blisters and skin redness caused by, for instance, ECG leads or similar sources.

The most publicly discussed injuries are created by ferromagnetic objects ('projectiles') attracted by the magnet attached to the patient or to people entering the magnet room, as those in Sweden.

## Constant education and obligatory safety drills for everybody involved in MR imaging are vital.

Constant education and obligatory safety drills for everybody involved in MR imaging are vital. Every person working or entering the magnet room or adjacent rooms with a magnetic field has to be instructed about the dangers. This should include the intensive care staff, and maintenance, service, cleaning and security personnel, as well as the crew at the local fire station.

The best protection against this danger is not to allow personnel other than those directly involved in patient examinations - i.e., the operator and the radiologist – into the magnet room by building the room with a closed and controlled access. As a general rule, access to the magnet room should be limited to trained and responsible personnel or to

thoroughly screened patients and visitors who are References accompanied by trained personnel.

Although to date there is no proof of any permanent damages to patients or staff caused by the magnetic or radiofrequency fields of commonly used clinical MR equipment, for some years negative health effects on humans have been increasingly published - mostly concerning ultrahigh machines between 3 T and 7 T and involving both patients and employees [1].

Considering the importance of MRI safety, the European Magnetic Resonance Forum and The Round Table Foundation offer a free (personal) offprint [2] of the chapter on safety from their recent 12th edition of their textbook Magnetic Resonance in Medicine • A Critical Introduction.

- 1. Rinck PA. MR safety update: Why we may not need a 20-Tesla MRI machine. Rinckside 2016; 27,6: 13-15.
- 2. https://magnetic-resonance.org/print-version.html#offprint.

Rinckside, ISSN 2364-3889 © 2020 by TRTF and Peter A. Rinck • www.rinckside.org Citation: Rinck PA. Radiologists: safety first or last? Rinckside 2020: 31.1. 1-2.

## The great data garbage heap

## Peter A. Rinck



mong the plethora of disturbing news, some "long-term" topics easily get lost. Some days ago I realized that I had too many files in my back-ups. I should and have deleted what I believe I won't need any more — or those I had forgotten that they existed. It took me several days. During the waiting times while they were deleted I pondered: How big is really big data?

The German weekly *Die Zeit* revealed in 2015 that the German Federal Intelligence Service BND rakes in 220 million worldwide telecommunication metadata every day and passes them on to its American counterparts NSA and CIA. The German agency states that they keep these data for "only" half a year [1]. Tens of thousands of people are employed for this kind of non-targeted mass screening.

I have written about (medical) screening and its outcomes several times, the last time in 2014 [2]. There are always pros and cons; the supporters of the pros usually claim that they want to save lives by finding, in the case of secret services, "early" terrorists or, in the case of medical diagnostics, "early" cancer. Who can oppose this – in particular if you are not being asked. Taxpayers' money is just spent without asking the payer.

However, I don't want to discuss screening or mass surveillance, but rather look at the problem of data storage and selection, in our case in medicine and in radiology in particular.

## There is a collecting and archiving mania.

There is a collecting and archiving mania. Today, everything in radiology has to be archived. Data does not really age, we are told, although in reality it does, and data storage carriers do too – rapidly so.

Suppose we are in the year 2040. Google has finally been broken into 50 smaller, independent companies by the anti-trust authorities. Because of the hilarious

amount of data doing a Google search does not show any data and publications created before 2020. If you have published a paper in 2014 it's lost in the cloud – if there still is a cloud. If you haven't paid your cloud fees your data pool is gone anyway. Or, perhaps somebody has accessed your data, processed them for purposes unknown to you, or altered them. Perhaps your data have been destroyed without your knowledge. Whom can you trust? Nobody.

There is another problem with the "cloud" – a term that sounds rather pleasant, white puffy clouds in front of blue skies, the perfect picture selling a green and clean environment. However, this kind of data storage, data crunching or, often, data cemetery facilities is definitely not clean and environmentally friendly; there is no sustainability, on the contrary. It needs an outrageous amount of energy for the server machines, for cooling and air conditioning.

In addition, the wide scale potential of on-line banking, social networking, e-commerce, e-government, information processing and others, result in unthought-of server workloads.

Then this question arises: Once we have placed our trust in a cloud provider – are we then completely at its mercy? It remains a fact that you give your data into the hands of strangers. What can we do against dependence?

Cloud computing can be an incalculable risk. Of course you can keep your data under your control if you don't want to hand it over to the big monopolies. However, which hospital, which private radiology office has the capacity and the financial resources to store all image and written data for 30 years? Handing out copies of the images on CDs to the patients is also impractical because CDs are not a reliable storage media.

The explosion of data is being countered by an increasing ignorance of how it came into being. We have more and more information, but less and less information about the information itself. How do you sort out data garbage? Old formats are no longer

readable. People create enormous archives of digital content, but after a short while they don't know what's inside [3].

I have had the unpleasant experience that I cannot read images made in scientific studies thirty years ago: they were stored on magnetic tapes, then on floppy disks, later on diskettes, then on CDs, then on USB sticks or hard disks. The half-life of digital media carriers is getting shorter and shorter. Just think of a CD-ROM or a VHS cassette. They are significantly less resistant to aging than books, and the data can no longer be read after just two to three decades. More so, there is no software that can decipher the early image formats. This holds not only for images but also for text files. For instance, Adobe Pagemaker was a leading layout software for publications, among them scientific papers and books. In the meantime Adobe has discontinued their erstwhile Pagemaker format; it cannot be deciphered any more today.

Future generations will suffer from a kind of digital amnesia because old formats are no longer readable. Will they have to return to printed books?

There are only unlikely or unappealing solutions – thus, the topic will be adjourned sine die, which means indefinitely. Let's shoot it into the cloud to be processed there.

#### References

- 1. Biermann K. BND stores 220 million telephone data every day. Zeit Online (in English). 2 February 2015.
- 2. Rinck PA. Screening mammography: the sequel. Rinckside 2014; 25,3: 5-6.
- 3. Rinck PA. Datarrhea the great data revolution. Rinckside 2016; 27,3: 7-8.

Rinckside, ISSN 2364-3889

© 2020 by TRTF and Peter A. Rinck • www.rinckside.org

**Citation:** Rinck PA. The great data garbage heap. Rinckside 2020; 31,2. 3-4.

## Will the Corona crisis clean up health care?

## Peter A. Rinck



he writing was on the wall, but hardly anybody saw it or could read it. Anyhow, it's part of human nature to avoid possible misery – partly by not facing it. There were voices crying in the wilderness describing the portents of disaster. We did not hear them.

In 2007 four researchers from Hong Kong summarized and reviewed research in a 35-page publication. They came to this conclusion:

"Corona viruses are well known to undergo genetic recombination, which may lead to new genotypes and outbreaks. The presence of a large reservoir of SARS-CoV-like viruses in horseshoe bats, together with the culture of eating exotic mammals in southern China, is a time bomb. The possibility of the reemergence of SARS and other novel viruses from animals or laboratories and therefore the need for preparedness should not be ignored [1]."

The few reactions to this statement were drowned in the general rejoicing about the great future — especially in medicine and radiology where we permanently have great leaps forward, from new gadgets to artificial intelligence. People forget that irrational, incalculable forces hover above human life. The principle of humanity, which has hitherto been so important in the health system, was being pushed into the background in favor of economic or ego-considerations.

Sometimes one should remember the motto of the boy scouts: "Be prepared."

### Financial or human value?

Some years ago, a major manufacturer of medical and radiological equipment removed the term *health-care* from its company name. Its new mission statement read:

"Our purpose is to enable healthcare providers to increase value by empowering them on their journey towards expanding precision medicine, transforming care delivery, and improving patient experience, all enabled by digitalizing health-care."

Value in this context is financial value, not necessarily human value. The health politics in some countries appraise private over communal medicine.

The medical-industrial complex lobbies for such systems without determining whether they are providing services of acceptable quality at reasonable prices and ensuring that they do not have adverse effects on the health care system [2].

The traditional providers of medical care – and medical research – are challenged by a noisy and critical civil society. Company managers, politicians, and lobbyists want to influence important aspects of medicine – and turn it into a modern commodity. In general, people lacking proper background comment and forcefully interfere with established medical and radiological routines. They believe that they know better. There is an attitude problem in our societies; lay people and political oddballs display a dangerous overconfidence in their ideas that makes them reckless [3, 4].

Why did the politicians and civil servants not implement the existing long-term plans for pandemics? Why were the government stocks of, among others, professional masks destroyed in some countries?

In France, for instance, the government apparently still had a stock of one billion surgical masks and 600 million masks of the professional standard FFP2 until 2010. "But after the H1N1 flu wave of 2011, it was decided that these stocks were no longer needed and that global production would be sufficient," reported Health Minister Olivier Véran. Older masks were destroyed after their date of use and not replaced to the necessary extent to "save" money. The same holds for Germany and other European countries.

Building up reserves in personnel, premises and materials does not correspond to the commercial logic that has found its way into the health care system.

Anything that is not constantly used to full capacity is dissolved for financial reasons.

## **Ethics and imaging**

In July 2019, TRTF, The Round Table Foundation, arranged its 9th Meeting on Ethics in Medicine: "The Depersonalization of Medical Imaging."

During the discussions, the participants stressed that healing and nursing, the main tasks of a physician, seem to dissipate in the realm of modern medical imaging. It was argued that the industrialization of medicine – including and most distinct in the service disciplines pathology, laboratory medicine and medical imaging – has turned sickness into a commodity and increasingly depersonalizes patients by standardization and interchangeability.

Science collects infinite miscellaneous biological and physiological processes and data, but ignores individual human uniqueness in order to abstract the underlying operating mechanisms. Decisions are taken over by machines and relied upon without control. Artificial intelligence and its ethical implications were one of the main topics of the meeting.

There is - or should be - a human beings' right to empathic and personal treatment by physicians, also in the ancillary medical disciplines such as radiology. However, during the last decades we could watch a gradual decline of the old values and of seriousness.

One of the main lessons to be learnt – or perhaps even *the* lesson to be learnt – from the ongoing pandemic that tortures mankind is that the gods always seem to fight back the hubris of humans. If you want, the term "gods" can be replaced by "nature". We have made progress in medicine but also lost a lot of compassionate and merciful health care and human interaction. However, when you mention this you are considered a spoilsport.

For years we have been worried about nuclear bombs, intelligent killer weapons, and the climate change. But now a primitive virus is hitting us and we have major problems to strike back. Is this an irony of nature?

### References

- 1. Cheng VCC, Lau SKP, Woo PCY, Yuen KY. Severe acute respiratory syndrome coronavirus as an agent of emerging and reemerging infection. Clin Microbiol Rev 2007: 20,4; 660-694.
- 2. Relman AS. The new medical-industrial complex. N Engl J Med. 1980; 303(17): 963-970.
- 3. Relman AS. On breaking one's neck. The New York Review of Books. 2014; 61(2): 26-29.
- 4. Rinck PA. Have you read the best medical paper of the year? Rinckside 2014; 25,7: 13-14.

Rinckside, ISSN 2364-3889

© 2020 by TRTF and Peter A. Rinck • www.rinckside.org Citation: Rinck PA. Will the Corona crisis clean up health care? Rinckside 2020; 31.3. 5-6.

## Congresses – a feeling of uncertainty • (I) A look back – The case of ECR

## Peter A. Rinck



ext year, the European Congress of Radiology in Vienna will celebrate its 30th anniversary. After 24 years of arranging a European meeting every four years at different locations on the continent, the new era of the conference in Vienna began in 1991 – until 1999 every other year, then annually.

This and the following column [1] try to give an impression of how ECR developed and how the Corona crisis could, or perhaps should influence the shape of this major medical conference.

## "The European Congress of Radiology – a European success story."

I followed the ECR in Vienna closely. The title of one of my first columns about the European Congress of Radiology in Vienna was: "The European Congress of Radiology – a European success story." In the article I wrote:

"From 1999, the ECR will change from its twoyear rhythm to being an annual congress. For some this is a controversial issue, although (or because) this move will establish the conference solidly as the main congress in Europe and, partly, Africa and the Middle East ...

"Still, national conferences and, in particular, specialized seminars and small-scale teaching courses will continue to exist and flourish because they are the backbone of continuing education [2]."

Less than ten years later, the positive mood had been watered down:

"You are standing [at ECR], admiring the success, and watching the train depart in the wrong direction. Or are you on the wrong train? Is ECR catering to a younger generation of radiologists who tackle science, medicine, patient care, learning,

teaching, and continuing education with a different approach from the generation before? ... The line separating science (or in this case medical radiology), commerce, and entertainment, between seriousness and show, has become blurred."

I didn't stand alone with these observations. Detailed feedback arrived fast:

"I only hope that the Rinckside column stirs some people into action and makes people take a critical look at the future of the congress. The ECR must respond to the needs of the average attendee. The ability to present high quality, state-of-the-art basic radiology practice should be high on the list."

Somebody else wrote:

"The commercialization of a major scientific platform has assumed alarming proportions ... At one end of the spectrum will be increasing 'medical amusement tourism' with lunch symposia, congress radio, and Mozart chocolate balls. At the other end will be specialist scientific conferences [3]."

ECR changed from a conference aimed at bringing the latest developments and presenting the existing standards of diagnostic imaging to European radiologists into an infotainment and sales show: "Europe's Biggest Medical Imaging Expo". The number of members of the European Society of Radiology exploded to more than 120,000. Quantity killed quality. Overshooting commerce and partying replaced authority in diagnostics and therapy. What went wrong?

The European Society of Radiology describes its objective as follows:

"The mission of of ESR is to serve the healthcare needs of the general public by supporting scientific research, education and training while constantly striving to improve the quality of radiological practice."

This description sounds a little strange to me because ESR is a professional society of radiologists, not an institution for the needs of the general public. Its main mission is to offer a platform for radiologists in Europe.

### Commercial influence

It is always a matter of weighing up the pros and cons. Of course, seen from the management side there is a "myside bias" and the strong dependence on the healthcare industry. The managing team of ESR/ECR clings to the more commercial and infotainment belief, and dismisses those who promote the ideals of academia, to make scientific institutions both in academia and in commercial environments more transparent and accountable, and to generate an active agenda of ethical values and use of research.

Because most radiological conferences depend on the goodwill of commercial sponsors, meeting organizers have to bend to their rules and criteria, which also include more direct influence upon the contents of formerly "independent" scientific meetings, their speakers and chairmen.

The organization of ECR and connected conferences of the twenty-some sister societies created and incorporated during the last decades is extremely professional. The participants are pleased by everything running smoothly. However, in some instances the hosts remind the observer of first-time conference organizers trying to pack the schedule, thinking that more content will mean a better conference. It's not true. Still, it might be financially more profitable.

ECR's aggregate contents and diverse locations in town have become very perplexing and puzzling. The organizers try to attract and to serve a wide range of possibly interested people at different venues in Vienna simultaneously – at an inopportune time of the year. The jumbo ECR contributes to the confusion of the social media age instead of systematically offering to fill in gaps in knowledge and establishing a clinical link.

"The critical assessment is missing," one female radiologist from Italy commented to me at ECR some time ago. "The university radiologists are so far away from our life and daily problems."

Another opinion: "I wonder what the ECR rationale is. So much precious time is taken up with all these

product-related lunch sessions that lure people away from the mainstream courses. The ECR appears to be practicing blatant commercialism rather than education."

This was the situation in early 2020. Then Covid-19 struck [1].

### References

- 1. Rinck PA. Congresses a feeling of uncertainty. (II) A case in point: ECR and the Corona fallout. Rinckside 2020; 31,5: 9-10.
- 1. Rinck PA. The European Congress of Radiology a European success story. Rinckside 1997; 8,3: 9-11.
- 2. Rinck PA. From ECR 2006: Drive for perfection has potential downside. Rinckside 2006; 17,1: 1-3.

Rinckside, ISSN 2364-3889

© 2020 by TRTF and Peter A. Rinck • www.rinckside.org Citation: Rinck PA. Congresses – a feeling of uncertainty • (I) A look back – The case of ECR. Rinckside 2020; 31,4. 7-8.

## Congresses – a feeling of uncertainty • (II) A case in point: ECR and the Corona fallout

## Peter A. Rinck



hen suddenly Covid-19 struck, the force of circumstances led to unthought-of changes. It hit not only airlines and restaurants, but it was also a terrible blow to continuing education and medical conference enterprises.

The collateral damage was and will be enormous, because the anxiety of people will reduce the number of conference attendants drastically. In the case of the European Congress of Radiology a danger of infection is not only the concourse of participants in the entrance hall, the corridors and the auditoria, but more so the pushing and shoving in the narrow aisles of the trade show – a perfect breeding ground for any kind of airborne infection.

# For the first time in our lives many of us experienced draconian restrictions on our professional conduct and individual freedom.

For the first time in our lives many of us experienced draconian restrictions on our professional conduct and individual freedom in an open and thus roaming society. We all had to do some rethinking and for a number of people in the field this rethinking process had to be extremely fast. Thousands of conferences were called off as the Covid-19 virus outbreak worsened.

The ECR statement when canceling the meeting this March mirrored this shock:

"The choice not to hold ECR 2020 onsite presents a significant burden for the European Society of Radiology and will also influence future congresses and endeavors ..."

There is no fast remedy for that, and financial state support for conferences seems unlikely. When these conferences or trade fairs will take place again one day, they will look and feel different. The "Vienna

hen suddenly Covid-19 struck, the force of experience" will probably change significantly for circumstances led to unthought-of changes. It the time being [1].

The solution offered was immediate: Go digital. But one cannot just suddenly arrange a conference online. It would be very hard to recreate the experience of a big meeting online – it's a big step from eteaching to e-congressing.

We know that e-teaching can be effective. But one misses the opportunity for direct communication and discussion with the lecturers and colleagues. People travel to attend a conference not just for the information, but to be around other people. The informal social contact often appears to be more important than the learned papers [2, 3].

## Video conferences and switching from onsite to online

Yet, meanwhile we rushed into the age of video-sharing platforms such as Zoom and YouTube. After a number of weeks of lockdown, a weariness spread among home office workers: "Zoom fatigue" – looking at a screen hours after hours is exhausting and tiring. The quality of the transmission is sometimes poor, image and sound bad. People sitting in front of a screen for more than three hours a day complain about problems with their eyes. Dryness, blurred vision, headache, sensitivity to light or premature tiredness lead to lack of concentration and increase the error rate.

It's feasible to switch from an onsite to an online meeting format and still meet most of the goals of a conventional medical conference, but to do so is challenging, the European Society of Radiology concedes:

"Many of the necessary techniques are well established. Recording and streaming of conference sessions for later on-demand viewing has been offered by some societies (including the ESR) for some years. Live webinars are common educational tools. However, a full congress is a more

complex proposition, involving a variety of session types, aimed at diverse types of attendees, with many different forms of interaction between speakers and delegates."

Still, looking at the online conference schedule participants are faced with an overladen program once again:

"The meeting will not only have a packed scientific and educational program ... but will also feature hundreds of abstract and poster presentations ... topped off with a virtual exhibition involving hundreds of industry partners.

"ESR Connect is set to host over 1,000 abstract and poster presentations, recorded and uploaded remotely by presenters from across the world ...

"Finally, ECR 2020 Online will also feature a virtual exhibition taking place on July 15-21. The interactive exhibition will host hundreds of companies, providing visitors with the opportunity to visit virtual booths, watch product demonstrations and talk live with company representatives."

The announcements talk in superlatives: "The congress ... still holds much of the same magic that onsite ECR's are already well-known for". And: "ECR has always been known for its elegance, style, and love for detail."

There is a lot of self-complacency and smugness here. Still, one must admire the enormous work done to readjust to the abrupt new situation and congratulate the team in Vienna. However, there is no guarantee of success.

I remember a discussion with a publisher of medical journals and books. He stated that they don't really publish for readers but for the authors because they need publications for their career. The same holds for many congresses, among them ECR. For this purpose the new YouTube style of presentations for a digital audience is perfect, although the citations of contributions will be difficult.

### Repercussions

ECR and ESR have turned from a forum of professional exchange into a business. When a business model no longer works, you have to change it. However, in the end, there is not the one and only right

way. It would be sad to see that something like ECR, built up over decades, finds an unexpected end.

As a consequence of the pandemia, there might be a less global, more local patient-centered regional medicine. Hopefully one will see less research in new imaging hardware and software, and a turn to patient care and impact studies of existing methods and applications. Medical imaging does not need permanent changes of systems and techniques. Medical imaging needs stability, reliably proven outcome of recent and novel techniques, and intelligent and well-trained physicians. We have the choice now.

### References

- 1. Rinck PA. Congresses a feeling of uncertainty (I) The case of ECR. Rinckside 2020; 31,4: 7-8.
- 2. Rinck PA. From ECR 2009: Walking down the corridors ... Rinckside 2009; 20,2: 3-4.
- 3. Rinck PA. Getting ready for ECR. Rinckside 2019; 30,2: 3-4.

Rinckside, ISSN 2364-3889

© 2020 by TRTF and Peter A. Rinck • www.rinckside.org Citation: Rinck PA. Congresses – a feeling of uncertaintty • (II) A case in point: ECR and the Corona fallout. Rinckside 2020; 31,5: 9-10

## Speech is silver, but silence is golden

## Peter A. Rinck



myriad of medical papers have been and still are written and published that are inessential and truly pointless. I have written about it quite often, the last time with a long list of references in 2015 [1]. However, virtually no one seemed interested or talked about it.

Worse still, there seem to be far more articles in the pipeline because some writers want to use other people's data for papers of their own. In an editorial published in 2016, the editor-in-chief Dr. Jeffrey Drazen and deputy editor Dr. Dan Longo of *The New England Journal of Medicine* were worried about this kind of misappropriation of data by rival researchers.

They talked about "research parasites" — "a new class of research person[s] ... people who had nothing to do with the design and execution of the study but use another group's data for their own ends, possibly stealing from the research productivity planned by the data gatherers ... [2]"

Within a few days, an outcry went through parts of the scientific community, and the two authors of the editorial clarified their remarks by promoting "symbiotical" work but they didn't retract their earlier statement. Unfortunately their own journal was hit by "parasitic" data use. What they had predicted happened to themselves. The critics remained silent.

Even publications in commonly respected peer-reviewed journals were joining in the mad rush of the Covid-19 rat race to become the first with "important" scientific or research results — without them being properly reviewed. The Lancet and The New England Journal of Medicine had to retract two papers about chloroquine for the treatment of Covid-19 and cardiovascular disease, drug therapy, and mortality in that disease. For The Lancet and The New England Journal of Medicine this turned to a disaster because "the veracity of the data underlying this observational study could not be assured by the study authors [3,4]."

The main authors had used data that they hadn't collected themselves. They had been provided by one of

the co-authors who runs a data collecting company. The inconsistencies in the data sets were not discovered by the peer reviewers of the two journals (if any), but apparently by Australian journalists. They detected the flaws in the papers immediately — but they might have escaped a cursory reader. I could imagine that the two papers were put on the fast-track to be published through favoritism, passing by other papers that were put on hold. Raw data and statistical analyses of studies are often at the center of fraud. Only in rare cases they are checked and verified by the peer reviewers.

### **Preprints**

More so, novel electronic means, articles for which it's difficult to get peer-reviewers, and the emergence of preprints put pressure on the ascendancy of well-established journals like *The Lancet* and *The New England Journal of Medicine*.

## The media got upset about the amount and minor quality of "scientific" papers turned out like junk mail by researchers.

When Covid-19 struck, daily newspapers, weekly magazines and other media got upset about the amount and minor quality of "scientific" papers turned out like junk mail by researchers and medical doctors all over the world. Suddenly there were preprints, press releases and scientific papers all over. Already at the beginning of June, 14,300 preprints were counted; meanwhile tens of thousands of preprints have been published. They are collected in an amazing repository [5]. In addition, there are more than 3,000 papers on Covid-19 and radiology, counting preprints and articles on MedLine.

Preprints are, by and large, unfinished preliminary publications of scientific papers before they are submitted to scientific journals — uploaded to on-line platforms. Since preprints are not independently peer-reviewed, their quality and validity is not controlled by any impartial decision of somebody of

competence and experience in the field and, thus, cannot be relied on. Yet, it is now common practice to cite preprints, and not just reviewed final publications.

Preliminary publications are not the way to go, neither in research nor in science. Some readers lack the ability to discern if the information given is trustworthy or not. They need "filtered", i.e. reviewed, information they can depend on. Trust plays a major role for such journals in the way as, for instance, for *Radiology* and *European Radiology*. If one cannot rely any more upon the accuracy and credibility of papers published in these journals, they face an additional stumbling block in their battle for survival, and the readers have trouble finding the right directions for making professional medical decisions.

Writing papers has no moral value in itself, but is the default choice of many to succeed in their careers. Scientific misconduct is usually driven by two factors: money and the ego, and often leads to maneuvering in the borderland between pseudoscience and scientific scams, between ambition and integrity.

## Simulating science

Sometimes one gets the impression that not only virologists and epidemiologists are the real experts of the Corona crisis, but also vampirologist and epididymologists — often academics who pretend to be knowledgeable in the field. Fortunately one country is blessed and has a former neuroradiologist as an advisor to the government's Coronavirus Task Force, leading the country through the pandemic.

Preprints and publications in junk journals are flourishing by the thousands in the recent decade, and research gets published with minimal effort, thereby padding academic CVs. Many of the Covid-19 preprints found coverage in popular media — mainly noise, very few real findings.

However, soon a critical mass of untrustworthy results and conclusions was reached, so that leading newspapers such as *Neue Zürcher Zeitung* and *Le Monde* complained about sloppy science while, on the other hand, journalists, politicians, and the general public were, sometimes inadvertently, relying on fraudulent and flawed research to guide major health-political decisions, and even veteran researchers had a hard time to ascertain which publications were indisputable. Unfortunately, some of this material

sticks to one's mind and becomes etched in people's memories — right or wrong.

What do we read concerning radiology: Chest MRI is a viable alternative to chest CT in Covid-19 pneumonia follow-up, although a number of other publications claim that chest CT is the best method. Yet, perhaps ultrasound is the best modality. But then again regular chest x-rays are sufficiently good ...

In a diplomatic way, the problem was also described in a recent survey article by Ivana Blažić, Boris Brkljačić, and Guy Frija about guidelines of how to use radiological techniques facilitating the diagnosis of Covid-19:

"Guidelines and recommendations of national and regional professional societies differ to a certain degree ... As a conclusion, it is obvious that the practice of imaging in Covid-19 differs throughout the world, especially regarding the utilization of conventional chest x-ray and computed tomography [6]."

Five years from now we will know better.

### References

- 1. Rinck PA. The calamity of medical and radiological publications. Rinckside 2015; 26,8: 21-22.
- Longo DL, Drazen JM. Data Sharing. N Engl J Med 2016; 374: 276-277.
- 3. Mehra MR, Desai SS, Ruschitzka F, Patel AN. Hydroxychloroquine or chloroquine with or without a macrolide for treatment of Covid-19: a multinational registry analysis. Lancet; 2020. | Mehra MR, Ruschitzka F, Patel AN. Retraction—Hydroxychloroquine or chloroquine with or without a macrolide for treatment of Covid-19: a multinational registry analysis. Comment. Lancet. 2020. Volume 395, issue 10240, P1820, June 13, 2020.
- 4. Mehra MR, Desai SS, Kuy SR, Henry TD, Patel AN. Cardio-vascular Disease, Drug Therapy, and Mortality in Covid-19. N Engl J Med 2020; 382: e102. | Mehra MR, Desai SS, Kuy SR, Henry TD, Patel AN. Retraction: Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19. N Engl J Med 2020; 382: 2582
- 5. Fraser N, Kramer B. Covid-19 Preprints. Repository. www.doi.org/10.6084/m9.figshare.12033672
- 6. Blažić I, Brkljačić B, Frija G. The use of imaging in Covid-19 results of a global survey by the International Society of Radiology. European Radiology; 2020: 17 September 2020.

Rinckside, ISSN 2364-3889

© 2020 by TRTF and Peter A. Rinck • www.rinckside.org Citation: Rinck PA. Speech is silber, but silence is golden. Rinckside 2020; 31,6; 11-12.

## To see and to be seen • Teleconsultations and rating sites aren't all good news

## Peter A. Rinck



his year, the use of commercial doctors' directories and telemedicine by video link between doctors and patients has exploded. This changes some aspects of the medical and human relationships between them.

## Teleconsultations: Seeing your doctor

Doctolib, for instance, a French company bolstered by substantial European and US-American venture capital, offers its technology and services to every doctor and other health care practitioners licensed to practice medicine by the French and German medical chambers. It is an online booking platform and management software provider for doctors and offers teleconsultation as well as a doctors' directory.

Doctolib sees a boom in online video-linked medicine predicting it will last even after society returns to normal following the Covid-19 outbreak. The company states that it has helped to arrange about 2.5 million consultations in a month, usually surpassing 100,000 a day, as doctors and patients go online to avoid exposing themselves or others to the Corona virus. The numbers are a hundred times higher than at the start of the crisis. The number of doctors using the platform increased tenfold [1].

Teleconsultations may not be suitable for every population and medical question. They are mostly used for accidents and emergencies; in psychiatry, psychology, and neurology; general practice and pediatrics; and dermatology. During the period of the pandemic seeing the doctor on screen as opposed to just talking on the phone, might carry an important psychological weight. For radiology, patient-facing teleconsultations are of very limited use.

In general, face-to-face appointments will continue to be the gold standard. However, as a recent British review of the use of video links points out:

"Novel technological solutions already allow certain physiological parameters — such as peak ex- However, here Jameda dives into a twilight zone. piratory flow rate, heart rate/rhythm, and remote

blood sugar levels — to be monitored remotely ... Wearable technology continues to develop, and solutions to other more nuanced aspects of physical examination may be developed in the future, however, for the time being, teleconsultations in outpatient settings are most likely to be confined to dialogue-based consultations where the need for rigorous physical examination is absent [2]."

All in all, Doctolib's business model of dedicated and secure teleradiology for video consultations might have a golden future. I am not sure about doctors' directories and advertising sites.

### Online Yellow Pages: Finding a doctor

When looking for a doctor nowadays you don't check the yellow pages of your telephone directory any more but rather a search engine on your computer or smartphone. Sooner rather than later you will land on a review portal for doctors where one finds not only the addresses and opening times of doctors' offices, but also ratings.

An example is the German doctors' rating portal Jameda. It is owned by the Hubert Burda Media, a highly complex, if not to say confusing, conglomerate of companies and holdings. The company is most likely best known for its DIY fashion magazines and celebrities and tabloid journalism publications, both printed and for some years also digital, among them "Bunte" and "Focus". Some years ago they started looking for new hunting grounds and came up with Jameda — a platform for classified advertising by medical discipline, a mixture of Tripadvisor and Facebook.

Every German physician is listed in Jameda's doctors' directory, whether they want it or not. Such lists are legal if they only contain data such as name, business address, telephone number, and medical discipline.

Their directory contains two classes of doctors.

Those who transfer between 59 and 139 euros to Jameda every month for a "premium package", which also includes adding a photo to their profile. Jameda calls them "customers". Then there are those who are listed by default and do not pay ("non-customers"). Jameda emphasizes that the premium package "has no influence on the doctors' ratings or their place in the Jameda doctor lists". However, a data analysis by the German weekly *Die Zeit* based on several thousand rated entries showed a different picture of this two-tier customer system. Many doctors complain that who pays does better [3].

The grading of doctors follows the same scheme as in restaurant or airline reviews — doctors are items, like yogurt, cheese, cars, films ... they are characterized by short reviews (more remarks) and yellow stars. Marking a human being, including physicians, with yellow stars reveals a deeply bad taste, in particular in Germany.

Often logistic or infrastructure factors such as "opening hours", "waiting times", "location" or even "lack of parking spaces" are reason enough to downgrade a medical doctor. This means that doctors are not assessed according to their professional qualifications but, basically, it is a rating of the office environment and the human relation skills of a physician. A good doctor can be grumpy, a bad doctor polite and pleasant. Hardly any patient possesses the experience to assess the medical knowledge and expertise of a physician: objectivity is not wanted and cannot be reached anyway. This opens the floodgates for fake reviews, positive or negative, some of them bought, some of them arranged.

One radiologist complained that an anonymous person wrote on Jameda that the doctor had been nasty to him and not explained the examination in detail to him, wanted to poison him and added some additional uncivil comments. However, the day the patient referred to happened to be in a period when the doctor was on holidays; the evaluation was fake. For physicians there is hardly any way to defend themselves. Just trying to respond to upsetting attacks means a waste precious time and energy.

Another colleague summarized the situation like this:

"I only can say that these reviews are both a curse and a blessing — many patients are into it! I would never choose my doctor this way — but a lot of people really do! Often it is those who comment who want to nag anyway — to simply let off steam. Some patients are always dissatisfied — and the whole Jameda system lives from them. Some people love these websites, some hate them — and others do not care.

"Still, patients have threatened me with a bad Jameda entry in order to get unauthorized treatments, examinations or sick leave. We're becoming even more vulnerable to blackmail than we already are. I have been lucky so far. On the other hand, there are so many portals that rate you. You don't even know that they exist."

# The more bizarre and nastier the comments, the greater the thrill of readers and the more clicks that drive advertising revenue

The business model and psychology of Jameda and similar rating platforms has been adopted from the sensationalist tabloid press. The more bizarre and nastier the comments, the greater the thrill of readers and the more clicks that drive advertising revenue.

Some time ago a German court decision made clear that Jameda is not a "neutral information broker" delivering clean directory information and must not provide paying customers with "hidden advantages over non-paying basic customers". The basic customers included in Jameda's listing without their consent should not be used as an "advertising platform" for premium customers [4].

In the center of its homepage Jameda cites another decision of a German court. The portal has the right to mark certain (positive) entries and ratings as "most likely fake." Citing such court decisions on one's homepage can easily ruin one's own reputation.

The editors seem to turn to subtle character assassination of almost everyone involved to attract more readers. All platforms should require written proof of consent of the possible victims, in this case medical doctors.

As one doctor stated:

"[The portal] seems to me to be highly manipulative and non-transparent. I am not at all surprised that Jameda is regularly being sued."

Rating portals deliver a non-essential but wanted service. Nevertheless, it is important to be aware that portals like Jameda pursue commercial interests. They make money from doctors who pay for their website representation.

A major nuisance doctors complain about is the behavior of patients; a large number of people booking an appointment just don't show up without canceling.

The list of clients, of patients making appointments, is extremely valuable. Having such lists and an approximate diagnosis by medical disciplines opens a wide field of interested users. Unfortunately, at least one of these platforms have already been hacked and patient data has been stolen.

Online physician directories and rating websites are marred by negative associations and bear a stigma of blackmail and viciousness — whether right or wrong, they are tainted with a sneaking suspicion that will never disappear. A lack of decency is hanging over this business model with its uncomfortable attraction of voyeurism. Therefore some providers see an attractive market for it. There is something enticing about denouncing somebody anonymously. It reverses the classic balance of power: vengeance is mine. Or, on the contrary, one can recommend oneself secretly to an unsuspecting public.

In a rampant way, the pandemic has exposed both promises of technologies and problematic applications. While Doctolib delivers an essential service at the time of a pandemic, Jameda and similar platforms exploit the situation by creating infotainment sites without delivering urgently needed positive contributions to healthcare.

### References

- 1. Doctolib. Doctolib among the top 3 providers of online medical consultations in the world. Press Release. 22 April 2020.
- 2. O'Cathail M, Sivanandan A, Diver C, Patel P, Christian J. The Use of Patient-Facing Teleconsultations in the National Health Service: Scoping Review. JMIR Med Inform. 2020 Mar; 8(3): e15380.
- 3. Fischer T. Zu welchem Arzt würden Sie gehen? Die Zeit 4/2018, 18 January 2018. https://www.zeit.de/2018/04/jameda-aerzte-bewertungsportal-profile-bezahlung
- 4. Grundmann S. OLG Köln: Jameda darf seinen Premiumkunden keine verdeckten Vorteile gewähren. 10 January 2020. https://www.kmh-medizinrecht.de/single-post/2020/01/10/OLG-Köln-Jameda-darf-seinen-Premiumkunden-keine-verdeckten-Vorteile-gewähren

Rinckside, ISSN 2364-3889

© 2020 by TRTF and Peter A. Rinck • www.rinckside.org Citation: Rinck PA. To see and to be seen. • Teleconsultations and rating sites aren't all good news. Rinckside 2020; 31,7; 13-15.



