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NEWSLETTER



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Editorial

Dear Colleagues and Friends,

It was a great pleasure to meet most of you in Barcelona. The Newsletter gives some impressions of our symposium: please find the reports of our prize committees for ICOHTEC's Young Scholar Prize and the Maurice Daumas Prize; they were awarded forth and third time thanks to donations of the Fundación Juanelo Turriano, Spain, and the Université de technologie de Belfort-Montbéliard, France. A portrait of the Young Scholar Prize winner, Hermione Giffard, is published as well as abstracts of interesting books which were send in for application. Our president James Williams contributed a report concerning the organisational development of ICOHTEC and an update on our reviewed journal ICON. A first short report of the Barcelona symposium was given by the Fundación Juanelo Turriano, on <http://www.juaneloturriano.com/noticias/index.php?id=279> and Susan Russell, the project manager of the symposium, prepared a photo gallery on <http://icohtec2012.atlantacongress.org/gallery/>.

Best wishes
Yours Stefan Poser

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I. ICOHTEC's Young Scholar Prize and Young Scholars on the History of Technology

Dick van Lente

In September 2011, ICOHTEC invited young scholars to submit their books for its annual book prize for 2012. The prize committee, consisting of Robert Belot, Thomas Zeller and Dick van Lente, received and reviewed 24 works, most of them doctoral theses defended or published in 2010 and 2011. The committee selected for the prize Hermione Giffard's dissertation, *The development and production of turbojet aero-engines in Britain, Germany and the United States, 1936-1945*, defended at Imperial College, University of London, in 2011 (not yet published). Below, I will give a brief account of Giffard's book.

It would be a pity, however, to bring only the prize winning book to your attention. The other books that were submitted deserve to be known to the ICOHTEC community as well. Some of these have not yet been published, and of those that are in print now, it will take a while before reviews appear. Therefore, I asked all submitters to send me a brief summary of their work for publication in the Newsletter. Most of them provided one, and they appear, in alphabetical order, below, with their email addresses, so that you may contact them for further information.

Although this collection cannot count as a representative sample of the recent scholarship in the history of technology, it seems to me that it does give an indication of themes that have been attracting much research in recent years. I will therefore introduce the gallery of new books with some very brief comments on the trends that can be seen in this limited sample.

First, then, our prize winner, Hermione Giffard's *The development and production of turbojet aero-engines in Britain, Germany and the United States, 1936-1945*. The book analyses the early development of the turbojet aero-engine in Britain, the US and Germany, 1936-1945, and through this comparative case study criticizes dominant methods of understanding technological change in the mid-twentieth century. This in turn leads to a proposal for a more adequate approach. The book can be read as a thorough revision of the presently most influential version of the turbojet's history, Edward Constant's *The origins of the turbojet revolution* (1980), which was also intended as a contribution to the theory of technological change.

Constant applied Kuhn's concept of scientific revolutions to the realm of technology, claiming that there was a 'turbojet revolution', in which the piston-propeller motor was replaced by the jet engine. Responsible for this revolution were young 'outsiders', who saw and recognized that the propeller technology was approaching its limits. This insight was based on their knowledge of the most recent developments of the science of aerodynamics. As the technological limits of the existing technology became more apparent, these individuals could push through the new one. Giffard offers two main objections to this account. First, she argues that Constant over-estimates the importance of science and of individual inventors. The development of the new engine was a more distributed phenomenon, contributions to which were made not only by theoretically oriented engineers, but even more prominently by people working in the aircraft engine industry. Innovation occurred not only in the design phase, but also during further development and production. The innovators were not a band of young revolutionaries, but technicians young and old, newcomers as well as experienced people. Giffard's interpretation is the result of shifting the focus of research from the invention phase to the development and production phases of the new technology. Second, continuity is as important as discontinuity, and 'revolution' is certainly a misnomer. Jet engines were mainly developed by firms that made piston engines, and the expertise used was based on knowledge of materials and parts used in the older motors; institutions especially devoted to invention rather than production were less important: it was 'largely a story of an industry developing old expertise in a new task'.

These criticisms have a much wider importance than the historiography of the jet engine. Giffard argues that many studies of innovation in the twentieth century are determined by narratives that either emphasize individual genius or the pivotal role of the research lab in industry. The turbojet story shows that innovations were produced by many people in a range of institutional settings. Analysis should proceed by looking closely at the way innovative activity was fostered in all these institutional settings, from the first inventions, via development, through production.

The book also revises the story of the jet engine at a more factual level. For example, Giffard shows that the British government did not neglect turbojet development, as has usually been

claimed, but strongly supported it, resulting in the technically most advanced jet engines at the end of the war. The Germans, who were the first to produce jet fighters in quantity, did so with inferior technology and out of necessity, because these machines were cheaper and simpler to produce (with slave labor) – a vital consideration for the exhausted German economy. The German jet-plane was ‘not a cutting-edge, game-changing weapon, but an ersatz piston engine.’ This too is a new insight.

In all, Giffard offers a new explanation of technological change in an important branch of industry, as well as a new way to approach innovation as a historical process.

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Now turning to the other books, the first thing to notice is that most of them are about Western Europe (including two on Spain) and the US. There are two books about the Soviet Union, and one on Chile under the Allende regime, while two books discuss the ‘globalizing’ effects of the telegraph network. Second, almost all these books are about the nineteenth and twentieth centuries, that is, the era of ‘cumulative, self-sustaining advance in technology’ (David Landes) that started with the British industrial revolution. The one exception is Summers-Stay’s overview of attempts to make creative machines from prehistoric times on.

Eight of the twenty-four books are about the ‘long nineteenth century’. Two of these focus on ‘classical’ industrialization, but with a new turn: Petersen discusses the transmission of knowledge and skills in the serial production of a highly complicated and sensitive mechanism, the piano, and Mutz presents a comprehensive environmentalist approach to innovation in the paper making industry that offers an entirely new perspective on industrialization. Five of the books on the nineteenth century focus on the period around 1900, the era of the ‘second industrial revolution’, imperialism, and, in the more recent literature, globalization. Müller-Pohl’s and Wenzhuemer’s books on the international telegraph system deal explicitly with globalization. Müller-Pohl focuses on the intentions and social networks of the engineers, entrepreneurs and others involved in the first transatlantic cable, who she claims were very influential in the subsequent ‘wiring of the world’. Wenzhuemer explores the ways in which the new network transformed communication globally. Two books discuss photography in the nineteenth century. Brusius places the well-known pioneer Fox-Talbot in a wider intellectual context, while Sheehan analyses the connection between photography and medicine, which she follows up to the present. Pohl Valero, finally, analyses the Spanish reception of thermodynamics.

Exactly half of the books, twelve, and part of Sheehan’s book, are about the twentieth century, mostly post-World War I; nine of these are concerned with the second half of the twentieth century. Here the most prominent theme is computers, cybernetics, the internet and their penetration in scientific and political thought and practice, as well as in social life. Five books are devoted to these themes. Garcia-Sancho analyses the interlocking developments of digital computing and DNA sequencing. Le Roux explores the impact of

cybernetics in the fields of molecular biology, economics and structuralism in France from the perspective of models inspiring new interpretations in these fields. Hauser analyses the role of different cultural conditions in the development of the West-German and the Soviet Internet. Medina tells the story of the building of a computer network that was to monitor and help direct the Chilean economy under Allende's socialist regime – a project that came to an end with the military coup of 1973.

Medina's case study is one telling example of the connections between high tech and political power. Several of the new books deal with similar themes. Kalmbach, for example, shows how the debate about Chernobyl in France was not only about the risks involved in a high level of dependence on nuclear power, but also about the power of the French 'nucléocratic' elites. Camprubi demonstrates how Spanish engineers functioned as agents of the Francoist state, transforming the economy and the landscape. Joergensen traces the development of the 'reverse vending machine' for recycling empty beverage containers as part of environmental policies and debates under very different conditions in Scandinavia and the US. Giffard's study also contributes to this analysis of technology and politics, as we have seen, because she shows the impact of different political regimes on the development of the jet motor.

The computer also exemplifies, of course, the connections between science and technology, which are another theme that we find in several of the new books. I already mentioned Garcia-Sancho on the interaction of computer technology and DNA sequencing. Another example is Vehlken's study of the use of the biological concept of the swarm in computer programs and visualization techniques that are used for analyzing all kinds of complex socio-economic phenomena – the concept of 'swarm' having a similar cross-disciplinary impact as thermodynamics, discussed by Pohl Valero, and cybernetics discussed by Le Roux. Haller traces the interaction between advances in medical research, ideas about health and the application of cortisone in medical practice. Finally, Mody shows how a community of researchers that developed around a new scientific instrument, the scanning tunneling microscope, succeeded in attracting large funds for work in a new field called nanotechnology.

Miriam Brusius, *Preserving the Forgotten. William Henry Fox Talbot, Photography and the Antique* (Dissertation, University of Cambridge, 2011, not yet published)

William Henry Fox Talbot (1800-1877) is remembered primarily as a photographic pioneer and influential early voice on photographic aesthetics, but his activities as a Victorian intellectual and 'gentleman of science' ranged widely across the natural sciences, classical scholarship and Assyriology. This thesis explores Talbot's scholarly interests and his role as an antiquarian in connection to his photographic achievements. It gives a broader picture of Talbot as a creative intellectual, taking into account the mindset behind his multiple interests.

The thesis compares Talbot's notebooks and photography as complementary note-taking practices and thus places photography in the context of the search for new recording devices and tools for reproduction, such as printing technologies, in order to select, organize, store, memorize and circulate information. This has led to new conclusions regarding the invention of photography.

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Lino Camprubi, *Political Engineering: Science, Technology and the Francoist Landscape (1939-1959)* (Dissertation, University of California, 2011, not yet published)

This book considers engineers as active participants in shaping the Francoist political economy. Through five independent but interconnected chapters, it goes beyond the debate of whether there was any scientific and technical tradition in the early years of the regime. Rather, the book asks how can the history of science and technology illuminate the history of the state and, in particular, of the early Francoist political economy. The answer lies in landscape transformation through coal, cement, churches, rural cities, rice, dams, and concrete standards. Readers interested in the particulars of the thesis can see the author's paper "One Grain, One Nation", in *Historical Studies in the Natural Sciences*, 2010. The paper follows rice seeds from the genetics laboratory into the field, to find the lab sitting at the center of a vertical system of autarkic production. Agronomists thus emerge as agents of the corporate state.

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M. Garcia-Sancho, *Biology, Computing, and the History of Molecular Sequencing From Proteins to DNA, 1945-2000* (Palgrave MacMillan 2012)

When we talk about DNA sequencing, it is the relatively recent Human Genome Project and the so-called 'genomics revolution' which immediately come to mind. However, sequencing has a longer and more complex history, which penetrates key issues of post-World War II biomedicine, such as the interplay of protein chemistry and molecular biology, and the growing interaction between biology and computing. This first book-length academic history of sequencing follows the development of this form of molecular analysis to offer a new insight into the development of biomedicine during the second half of the twentieth century. The book explores the emergence of the first protein and DNA techniques, the development of sequencing software and databases, and the commercialisation of the first automatic sequencers by the company Applied Biosystems. This vital historical perspective will allow both professionals and scholars to think rather differently about the emerging fields of bioinformatics and biotechnology, as well as the impact of biomedicine on modern society more broadly.

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Lea Haller, *Cortison. Geschichte eines Hormons, 1900-1955* (Zürich, Chronos Verlag 2012)

[Cortison. History of a hormone, 1900-1955]

Due to a wrong assumption, a hormone of the adrenal cortex was tested on a patient with severe rheumatoid arthritis in 1948 – and proved effective. It was named cortisone and became one of the most important drugs of the so-called pharmaceutical revolution of the 20th century. This book illuminates the changes of knowledge and medical practice which made cortisone possible: The advent of the hormone theory around 1900, the substitution therapy of the interwar period, the conception of enhanced bodies during World War II and the thesis of adaptation diseases after the war. During half a century of hormone research not only the pharmaceutical substances were modified but also the notions of health, disease and medical therapy. (The book is in German.)

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Robert Hauser, *Technische Kulturen oder kultivierte Technik? Das Internet in Deutschland und Russland* (Berlin: Trafo Verlag 2010)

[Technical cultures or cultivated technology? The internet in Germany and Russia]

This book aims to provide a comparative techno-historical study of the history of the Internet in Germany and Russia. Building on the notion of "cultivated technology", the book focuses on the question in how far appropriation and usage of the internet were influenced by the respective cultural settings of these two societies. The timespan ranges from the early beginnings of Internet development (the late 1970s for Germany and the early 1990s for Russia) until around 2008.

In the course of this research, the technological history of the Internet in both countries has been reviewed and analysed. This in turn served as the primary context that was compared to a secondary one, namely the cultural history of both countries. Both parts, theoretical and historical, were complemented by a third part that mainly focuses on empirical data, such as interviews with contemporary witnesses.

Via the comparison of these two contexts, connected to the background in both countries as well as a separate comparison done between Germany and Russia and their respective contacts with this type of communication technology, it was possible to identify certain mechanisms which demonstrate that the development and adoption of technology are heavily dependent on the cultural setting of a society. It also became clear that even beyond

the horizon of a cultural history of adoption and usage of the Internet, technology itself plays a pivotal role in defining cultural patterns and even manages to produce new and unique forms of cultural techniques.

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Finn Arne Jørgensen, *Making a Green Machine: The Infrastructure of Beverage Container Recycling* (Rutgers University Press, 2011)

Consider an empty bottle or can, one of the hundreds of billions of beverage containers that are discarded worldwide every year. Empty containers have been at the center of intense political controversies, technological innovation processes, and the modern environmental movement. *Making a Green Machine* examines the development of the Scandinavian beverage container deposit-refund system, which has the highest return rates in the world, from 1970 to present. The author investigates the challenges the system faced when exported internationally and explores the critical role of technological infrastructures and consumer convenience in modern recycling. His comparative framework charts the complex network of business and political actors involved in the development of the reverse vending machine (RVM) and bottle deposit legislation to better understand the different historical trajectories empty beverage containers have taken across markets, including the U.S. The RVM has served as more than a hole in the wall – it began simply as a tool for grocers who had to handle empty refillable glass bottles, but has become a green machine to redeem the empty beverage container, helping both business and consumers participate in environmental actions.

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K. Kalmbach, *Tschernobyl und Frankreich. Die Debatte um die Auswirkungen des Reaktorunfalls im Kontext der französischen Atompolitik und Elitenkultur* (Frankfurt a.M.: Peter Lang 2011)

[Chernobyl and France. The debate about the effects of the reactor accident in the context of French nuclear policy and elite culture]

The core of the French debate on the impact of Chernobyl consists of the decision of the French government in 1986 to not undertake any counter-measures against the radioactive fallout, since the French nuclear experts claimed – and continue to claim – that the Chernobyl fallout would not do any harm to the French population. This point of view was contested from the beginning on and led to an intensive debate over the possibility that the French government and the nuclear experts consciously lied to the French people and jeopardised their health in order to protect the French nuclear program from any criticism.

In addition to an analysis of the discourses that developed from 1986 to 2006, this study focusses on the question of how the debate on the impact of Chernobyl influenced the French commemoration of the 20th anniversary in 2006 and vice versa. Furthermore, this study sheds light on the implications for French nuclear politics that are tied to this commemoration. By placing the debate on the impact of Chernobyl in the context of the general criticisms that are brought up against the French nuclear politics and elite culture, this study argues that the commemoration of Chernobyl serves as a 'proxy war' in the fight against the power of the French 'nucléocratie'.

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Ronan Le Roux, *La cybernétique en France (1948-1970). Contribution à l'étude de la circulation interdisciplinaire des modèles et des instruments conceptuels et cognitifs* (Thèse de doctorat, École des Hautes Études en Sciences Sociales, Paris 2010)

[Cybernetics in France 1948-1970. A contribution to the study of interdisciplinary circulation of models and conceptual and cognitive instruments]

This dissertation deals with the historical spreading of feedback-control models in the scientific context of postwar France. Its topic is how the concept of feedback control propagated from the technological field to the scientific field. The first part of the dissertation deals with problems of definitions, which have been recurrent in the field of the history of cybernetics and have an impact on the historiography of various disciplines and their relation to cybernetic concepts. The second and main part of the dissertation is devoted to the history of cybernetics, and addresses several key points and contexts of the process of conceptual circulation. One chapter deals with the emergence of the discipline 'Automatique' and the use of the word 'Cybernétique' among French engineers. *Cybernétique* has temporarily been the word chosen to refer to the new unifying discipline of automatic control, before *Automatique* was eventually preferred.

Another chapter deals with how Cybernetics played the role of a theoretical attractor for various projects of abstract theories of machines. These analyses of the cybernetic reference in the technological field is followed by a study of how cybernetic concepts do or do not penetrate in various scientific disciplines and do or do not give place to operational classes of models. Case studies include molecular biology, economics and the French structuralist current in anthropology and psychoanalysis. Synchronical and diachronical comparisons, with other countries and the contemporary state of development of disciplines, show that appropriation of the feedback concept in the French postwar context was very poor, despite huge general interest in Cybernetics: everybody would talk about Cybernetics, but none would practice it. Hypotheses are made to account for this two-decades gap on the scale of a whole country. They include short-term factors (such as the circumstances of World War II) and deeper, long-term structural factors (such as the inertia of insitutionalized Comtian positivism, which considers that knowledge can and must flow only from science to

technology, and not the opposite, as well as disciplinary boundaries and purism, such as the gap between social and hard science, on the one hand, and the gap between mathematics and other sciences, on the other hand, which makes the development of model-building communities and collaborations very difficult). The third part of the dissertation is philosophical. It reflects on model-building as a technical activity and models as instruments of knowledge, and how the analysis of technological circulations between disciplines may be useful for the understanding of the practical conditions of science.

Several chapters have already been published as papers in French journals, see for example:

“Pierre Ducassé et la revue *Structure et Évolution des Techniques* (1948-1964)”, *Documents pour l'Histoire des techniques* n°20, 119-134, 2011.

“L'impossible constitution d'une théorie générale des machines ? La cybernétique dans la France des années cinquante”, *Revue de synthèse*, Springer, vol. 130, n°1, 5-36, 2009.

“Lévi-Strauss, une réception paradoxale de la cybernétique” (including a reply from Claude Lévi-Strauss), *L'Homme*, Editions EHESS, n°189, 165-190, 2009.

“Psychanalyse et cybernétique. Les machines de Lacan”, *L'Évolution Psychiatrique*, Elsevier Masson, vol. 72, n°2, 346-369, 2007.

More publications based on this dissertation are planned to follow.

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Eden Medina, *Cybernetic revolutionaries. Technology and politics in Allende's Chile* (Boston: MIT Press 2011)

This book tells the history of two intersecting utopian visions, one political and one technological. The first was Chile's experiment with peaceful socialist change under Salvador Allende; the second was the simultaneous attempt to build a computer system that would manage Chile's economy. Neither vision was fully realized — Allende's government ended with a violent military coup; the system, known as Project Cybersyn, was never completely implemented — but they hold lessons for today about the relationship between technology and politics.

Drawing on extensive archival material and interviews, the book examines the cybernetic system envisioned by the Chilean government — which was to feature holistic system design, decentralized management, human-computer interaction, a national telex network, near real-time control of the growing industrial sector, and modeling of the behavior of dynamic systems. The author also describes, and documents with photographs, the

network's Star Trek-like operations room, which featured swivel chairs with armrest control panels, a wall of screens displaying data, and flashing red lights to indicate economic emergencies.

Studying Project Cybersyn today helps us understand not only the technological ambitions of a government in the midst of political change but also the limitations of the Chilean revolution. This history further shows how human attempts to combine the political and the technological with the goal of creating a more just society can open new technological, intellectual, and political possibilities. Technologies, the author writes, are historical texts; when we read them we are reading history.

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C.M. Mody, *Instrumental community. Probe microscopy and the path to nanotechnology* (Cambridge, Mass: MIT 2011)

The scanning tunneling microscope (STM) has been hailed as the 'key enabling discovery for nanotechnology,' the catalyst for a scientific field that attracts nearly \$20 billion in funding each year. This book tells the story of the invention, spread, and commercialization of scanning probe microscopy in terms of the networked structures of collaboration and competition that came into being within a diverse, colorful, and sometimes fractious community of researchers. By forming a community, the author argues, these researchers were able to innovate rapidly, share the microscopes with a wide range of users, and generate prestige (including the 1986 Nobel Prize in Physics) and profit (as the technology found applications in industry).

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Simone Müller-Pohl, *The class of 1866 and the wiring of the World. Telegraphic networks in maritime space, 1858-1914* (Dissertation, Freie Universität Berlin, not yet published)

This study analyzes processes denoting a history of globalization that includes political and economic as well as social and cultural aspects. Centering the analysis on the wiring of the world in general and the North Atlantic realm in particular, it focuses on its agents, namely the class of 1866 (those that successfully laid a first transatlantic cable) and others, such as Jay Gould, John W. Mackay and Henniker Heaton, who joined them in the attempt to structure the global media system. The author sees those actors of submarine telegraphy as actors of globalization and hence also in their function as mediators of exchange, transfer and translation. Essentially, the study investigates how the global telegraph system was politically, culturally, economically, technologically, and socially structured and constructed and asks what we can learn from that with regard to a history of the globalization processes.

The author argues that we cannot conceptualize globalization and nationalization as opposed concepts, that cultural and social aspects, e.g. the actors' perceptions of what denotes *Weltcommunication*, played an equal part in the construction of a unifying world as political and economic considerations, and that we cannot understand globalization solely as the actual process of networking, but also as a perspective, a point of view from which people acted.

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Mathias Mutz, *Umwelt, Umwelt als Ressource. Die sächsische Papierindustrie, 1850-1930* (Göttingen: Vandenhoeck & Ruprecht, 2012)

[The environment as a resource. The paper making industry in Saxony, 1850-1930]

Managing resources and organizing environmental relations essentially shaped the industrialization of the Saxon pulp and paper industry. Because of its extensive resource needs, paper production is a crucial example to trace the connections between enterprises and their environment. Here, the book identifies three dimensions of interaction: a spatial one relating to location and infrastructural networks, a material one as input and output of resources, and finally an institutional one concerning conflict strategies and organisational choices.

The book analyzes this co-evolution from the 1850s to the 1930s, focusing on the industry's use of water and wood. To cover space for the transport of goods, to control material flow of raw materials, or to invest in waste water technology tied up resources of the firm and affected its prospect of success. The interdependence of environment and enterprise, therefore, must be seen as a central part of business development. Technology became an important intermediate, although the strategy of 'technologization' was only successful to some extent. Nature became the subject of standardisation and regulation and a trend towards vertical integration of the environment into the firm becomes evident.

A central conclusion of the book is that economy and ecology can never be seen as separated spheres. Here, new perspectives on the ecological basis of modern industry may bridge the gap between business and economic history on the one hand, and environmental history on the other hand.

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Benjamin Peters, *From Cybernetics to Cyber Networks: Norbert Wiener, the Soviet Internet, and the Cold War Dawn of Information Universalism* (Dissertation, Columbia University, May 2010, not yet published)

A critical study of cybernetics and its contradictions, this book traces fault lines in the mid-twentieth century construction and imagination of digital communication. The main memory of American communication research holds that digital media research began with the proliferation of networked personal computers and social media devices in the 1990s. According to this storybook telling, digital media are understood as powerfully new and transformative communication tools for transcending space, time, and difference—a doctrine I call information universalism. By information universalism I mean to capture a computational turn in the history of communication thought—a turn in which communication became understood as a decontextualized and supposedly value-neutral computational activity of information exchange independent of the rich environments of social interaction—gestures, inflections, grammar, setting, etc.—that conventionally give meaning to the coordination of symbols. The foundation of mathematics, according to many information universalists, provides a platform for believing that information and communication technology somehow gives rise to a natural and spontaneous social order as well as a neutral politics independent of human intervention and bias. This dissertation examines and challenges such a belief through a critical history and analysis of cybernetics—a postwar meta-discipline of communication and control concerning computer-compatible analogies linking organic, technical, and social systems.

Central to this history and analysis are two case studies. First, the life and work of Norbert Wiener, the only founder of cybernetics widely recognized by both American and Soviet commentators, provide an account of the embedded and material origins for the very cybernetic thinking about digital communication as a disembodied activity. The extraordinary story of Wiener, thus, supports a classic understanding of communication as embedded in specific material conditions. Second, the previously almost unexamined case study of why the Soviets, despite repeated attempts, failed to develop a large-scale civilian-use network contributes scholarly understanding of the Cold War development of the Internet. Adding to the well-known framing of the ARPANET as, in part, the product of Cold War defense research, I reframe the development of these early nationwide computer network projects within the context of internal sources of institutional competition, while also noting the role played by cybernetics in inspiring, for better and for worse, the design of early Cold War networks. These two case studies combine to challenge the staying power of the narrative currently advanced about contemporary digital media and communication as the product of an ostensibly liberal and often overwhelmingly American-centric information society. Instead, this history and analysis of Cold War cybernetics helps recover, elongate, and internationalize a usable and teachable view of the intellectual roots connecting the past to the increasingly digital present.

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Sonja Petersen, *Vom ‘Schwachstarkasten’ und seinen Fabrikanten.*

Wissensräume im Klavierbau 1830 bis 1930 (Münster: Waxmann 2011)

[Spaces of Knowledge in the Craft of Piano Making 1830-1930]

In piano making a significant change took place in the course of the industrial revolution. Production methods transformed during the second half of 19th century from the traditional arts and crafts workshop into a modern production unit based on the division of labour. However, the traditional manufacturing of music instruments also encompassed a specific, spatially bound working knowledge. This working knowledge was characterised by an integration in the physical body of the worker, and it was transferred informally, including individual experiences. This knowledge played an essential role for the production of high quality music instruments. The book aims to answer the question how knowledge and skills were passed on in the craft of piano making. Knowledge appeared in different spaces, for example in individual notebooks (storage medium of knowledge), in professional journals (forums of knowledge) and in institutions of research like acoustic laboratories at piano making factories (sites of knowledge). Therefore, research needs to analyse the relations between formal as well as personal knowledge and space and technology.

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Stefan Pohl Valero, *Energía y cultura. Historia de la termodinámica en la España de la segunda mitad del siglo XIX* (Bogotá: Editorial Pontificia Universidad Javeriana, Editorial Universidad del Rosario, 2011)

[Energy and Culture: A History of Thermodynamics in the Spain of the Second Half of the Nineteenth Century]

In the second half of the 19th century, the disciplinary map of physics and the life sciences was reshaped by the new science of thermodynamics, which became one of the main scientific developments of that century. At the same time, its laws played an important role in the configuration of western modern social thought. Besides cosmological and terrestrial natural phenomena, even society started to be analysed under an energetic conceptual frame, producing a deep influence in religious, educational, political and economical discourses. European intellectuals from the entire ideological spectrum participated in these kind of discourses. This book thoroughly analyses the process of communication and appropriation of thermodynamics during the last third of the 19th century in Spain, stressing how the cultural reformulation of its laws was foundational for understanding the natural world and Spanish society during a critical period of its history.

This book represents an innovative effort to propose a cultural history of science and technology approaching scientific theories as cultural artifacts actively and creatively employed by different historical actors, transcending traditionally conceived frontiers between natural and social orders. Due to the variety of sources employed and its historiographical

approach, the book is aimed not only at readers interested in the history of science and technology, but also at those interested in interdisciplinary approaches to critical analysis of our own modern culture.

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Tanya Sheehan, *Doctored: The Medicine of Photography in Nineteenth-Century America* (University Park, Pennsylvania: Penn State University Press, 2011)

This book takes a new look at the relationship between photography and medicine in American culture, from the nineteenth century to the present. Sheehan focuses on Civil War and postbellum Philadelphia, exploring the ways in which medical models and metaphors helped strengthen the professional legitimacy of the city's commercial photographic community at a time when it was not well established. By reading the trade literature and material practices of portrait photography and medicine in relation to one another, the author shows how their interaction defined the space of the urban portrait studio as well as the physical and social effects of studio operations. Integrating the methods of social art history, science studies, and media studies, *Doctored* reveals important connections between the professionalization of American photographers and the construction of photography's cultural identity.

Please contact the author by tsheehan@rci.rutgers.edu

D. Summers-Stay, *Machinamenta. The thousand year quest to build a creative machine* (Machinamenta publishing 2011)

Machinamenta is an exploration of the ancient roots of machines which are designed to be creative. It begins with the divination systems of prehistoric Africa, which followed mathematical principles to generate unique utterances in response to the questions of petitioners. Tracing the influence of philosophers and artists, inventors and scientists, musicians and mystics, it goes on to explore machines that, before the dawn of the twentieth century, were designed to write poetry, compose new melodies, understand language, prove theorems, and create artwork. It concludes with an examination of the current and future prospects for someday building a machine that can truly be called creative.

Of particular interest to historians of technology are the descriptions of various inventions such as the Eureka, which generated Latin poetry in hexameter while playing "God Save the Queen"; the Homeoscope, a mechanical search engine invented by a Russian police clerk in 1832; the Componium, an orchestra-in-a-box which created random variations on a melody; and many others along the same lines. Contemporary newspaper accounts and letters help to give a sense of how the machines were received by their audiences.

One reviewer calls it, "an excellent, admirable work, concise but richly informative, serious without being ponderous, forthright without being contentious, focused but wide-ranging." It is available from Amazon.com and other online bookstores for under ten dollars.

Please contact the author by dsummerstay@gmail.com

Sebastian Vehlken, *Zootechnologien. Eine Mediengeschichte der Schwarmforschung* (Berlin/Zurich: diaphanes 2012)

[Zootechnologies. A Media History of Swarming]

Phenomena of swarming have recently become a key element of cultural and socio-historical debates. This development owes to the attractiveness of distributed organizational layouts, the capacity of collective intelligence, and the efficiency of zoo-political metaphors. However, it is a third instance, a technological element, which mediates between biological and sociological or cultural conceptions of dynamic collective arrangements. It is not only that various media technologies have been applied in the scientific research on swarms, flocks, and schools since 1900 – spanning from oceanic observation and aquarium experiments to mathematical models and dynamic computer simulations. Over and above that, this biological research inspired and fostered the development of programming and visualization techniques in computer science which engages with intransparent problem contexts and complex organisational tasks – extending from logistics to financial market simulations, or from epidemics to multiple robot systems.

Swarms can be described as Zootechnologies, combining the ‘zoé’, the ‘naked’ animal life in biological collectives, with the experimental epistemology of computer simulations. Only this media technological dimension enables the recent enthusiastic discursive reverberations and determines the complex resonances between network euphoria, novel ideas of regulation, communication and organisation, and the aesthetics of dynamic collectives.

The volume not only contributes to the decipherment of a prominent figure of the social and political imaginary. Most notably, it reconstructs swarming as a scientific field initiating recent transformations in the conception of complex systems, and thus rearranging our socio-economical political and scientific landscapes.

Please contact the author by sebastian.vehlken@leuphana.de

Ronald Wenzlhuemer, *Connecting the Nineteenth-Century World: The Telegraph and Globalization* (Cambridge University Press, forthcoming Oct. 2012)

By the end of the nineteenth century the global telegraph network had connected all continents and brought distant people into direct communication ‘at the speed of thought’ for the first time. The author examines the links between the development of the telegraph and

the paths of globalization, and the ways in which global spaces were transformed by this technological advance. His approach combines cultural studies with social science methodology, including evidence based on historical GIS mapping, to shed new light on both the structural conditions of the global telegraph network and the historical agency of its users. The book reveals what it meant for people to be telegraphically connected or unconnected, how people engaged with the technology, how the use of telegraphy affected communication itself and, ultimately, whether faster communication alone can explain the central role that telegraphy occupied in nineteenth-century globalization.

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ICOHTEC's Young Scholar Prize is sponsored by the Fundación Juanelo Turriano, Spain.

II. Hermione Giffard – A Portrait

II.1 Turbojet Engines

Innovation seems too often to be pursued as a public good without thought to the complicated details of how it occurs or the varied places where it happens. Formal thought on invention in the history of technology has remained remarkably unchanged over the past half century, despite promising departures in the literature. I chose the early history of the jet engine for my study of invention because, as has already been recognized by historians, it is a rich subject for investigating the nature of technological change in the twentieth-century in comparative perspective. It bridges academic and public worlds because the story has also captured the public imagination as a story of heroic invention. The two accounts share a focus on particular individuals and engines. In my thesis, I tried to change both types of account (and understand their connections) by critically reinterpreting and broadening the history of the jet engine.

In my study of the creation of the first service jet engines in Britain, Germany and the United States between 1936 and 1945, I chose to focus on the critical years of production in industry. The comparison between three countries emphasized the relationship between each nation's unique technical choices and their connections to particular political, military and economic decisions. Thus, the thesis approached the jet engine story in an entirely new way by combining a thorough technical awareness of early jet engines – crucial to understanding the history – with an awareness of the story's economic, political, military and social contexts. It looked for innovation emerging in unfamiliar places and from the work of groups often ignored by historians.

Beginning with a story that tried to make the extent and significance of jet engine production during the Second World War clearer, my thesis illustrated how production, development and invention – activities often treated as separate – are fundamentally linked. The structure of

the thesis reverses the order of telling in popular stories of invention, and by telling the story in an unfamiliar way, the narrative demonstrates that all three activities occurred not sequentially but simultaneously, a notion also supported by the recent work of other historians. By focusing on a slightly later time period than traditional invention stories, I showed how the jet engine story can be convincingly told without reference to earlier inventive periods or patent struggles.

I made a key change to the existing jet story by looking particularly at the contributions of industry and exploring the question: 'How do existing companies learn to do new things?' Through this focus on industry, the thesis approaches the jet engine as emerging from the existing aero-engine industry rather than as arising outside it. The narrative thus emphasised continuities rather than radical breaks. By asking how firms remain innovative over time, I suggested that we need to think more broadly about what makes particular firms effective in creating new machines. In this context, my thesis also re-examined and re-interpreted the contributions of the institutions and inventors outside of the aero-engine industry that are well-known from existing accounts. My new approach to the story thus allowed for an important recalibration of our understanding of the importance of different actors and skills in the jet engine story.

My thesis ended by looking at how the story of what was a secret wartime development project in all three countries morphed into different nationalist narratives, abetted by the greater public visibility of particular groups in each country as well as by historiographical biases in the history of technology itself. In bringing attention to the variety of sources of technical change in the case of the jet engine, my thesis gestured also at the elements that might make up a new, more satisfying account of the sources of technical novelty in the twentieth-century. Rather than dismissing the topic, the history of technology can benefit greatly by thinking anew about innovation in the twentieth-century.

II.2 Hermione Giffard – CV etc.

After doing undergraduate and master's work in science and engineering, I took up the study of the history of technology at Imperial College's Centre for the History of Science, Technology and Medicine. I wrote my master thesis about the rise of tungsten carbide tooling in Britain, which opened my eyes to the prevalence and nature of technical change in industry. I did my PhD in the history of technology into the history of the jet engine. The topic was particularly attractive because it combines many subjects of interest to me: manufacturing, industry, the relationship between the development of new materials and technical capability, war and supply, comparative history, technical change, and technology in the first half of the twentieth century. My doctoral research was supported in part by a Royal Air Force Award for Research into the History of Aviation (granted by the Royal Air Force Historical Society and Royal Aeronautical Society Historical Group). I also benefitted during my studies from spending time as a fellow at the Smithsonian Institution's Air and Space Museum.

I attended my first ICOHTEC meeting in Glasgow in 2011 as a newly minted post-doc, and I was impressed by the organization's broad membership and its encouraging embrace of new arguments. I was therefore greatly honored by the committee's selection of my thesis for the young scholar's prize, and I particularly enjoyed the discussion session devoted to my thesis at the recent meeting in Barcelona. It was a real privilege for me as a young scholar to have my work critically read and discussed by a group of eminent scholars! My thesis has not yet been published, but I hope to get it into print soon.

III. Report by the 2012 Committee for the Maurice Daumas Prize

ICOHTEC's article prize, the Maurice Daumas Prize, has been awarded for the second time. The call was distributed widely during the autumn of 2011 and by the deadline of January 2012, 28 articles had been submitted for consideration. This number was even higher than last year (24 submissions) and the competition once more became keen.

Original articles published in any of the official ICOHTEC languages (English, French, German, Russian or Spanish) are eligible to the prize. Out of the 28 contributions, 23 were written in English, 4 in French and 1 in German. The United States dominated as place of residence among the applicants, with 8 contributions, followed by France 5, Germany 4 and Canada 3. Additional submissions were received from the Netherlands, Sweden, Finland, Italy, Japan and Australia.

Not surprisingly, different subfields of history, such as history of science and technology, environmental history, cultural history, law history and economic history, were in a majority, accounting for 22 of the essays. Other research fields represented were communication studies, design, religion and environmental studies. 11 of the articles (39 percent) were written by women, a noticeable increase compared to last year (25 percent). A few articles were also co-authored.

The prize committee for 2012 consisted of Dr. Anna Storm, Sweden, chair, Professor Martina Hessler, Germany, Professor Pierre Lamard, France, and Dr. Andrew J. Butrica, USA. After many hours of reading and some discussion, the committee decided to award the article "On Disability and Cybernetics: Helen Keller, Norbert Wiener, and the Hearing Glove" written by Mara Mills as this year's winner of the Maurice Daumas Prize.

Mara Mills is an Assistant Professor of media, culture, and communication at New York University, and her article was published in the journal *differences* in 2011. "On Disability and Cybernetics" reviews the long history of the hearing glove, a device invented by Norbert Wiener for improving the speech of the deaf, and relates this speech technology to the definitions of information, compression, and feedback in twentieth-century communication

engineering. The paper touches on cybernetics, telephone engineering, standardization and efficiency, semiotics and the meaning of signs, and much more.

“On Disability and Cybernetics” is thought-provoking reading with an impressive list of characters that brings together Norbert Wiener and Helen Keller among many other notables. The article reminds the reader of the importance of disability in the underwriting of the Bell Telephone Company: Alexander Graham Bell had tutored the deaf children of the company's main investors, Gardiner Greene Hubbard and Thomas Sanders. The article makes important contributions to the history of technology in several specialized areas, but most importantly it stands at the lightly travelled intersection of media technology and disability studies.

28 May 2012

Dr. Anna Storm, Sweden, chair,
Professor Martina Hessler, Germany
Professor Pierre Lamard, France
Dr. Andrew J. Butrica, USA

The prize is named in honour to the French Historian Maurice Daumas (1910 – 1984) who was ICOHTEC's first Secretary General. It is sponsored by the Université de technologie de Belfort-Montbéliard.

IV. Improvement of ICOHTEC's Organisational Structure – Report from the President

ICOHTEC's 39th annual symposium in Barcelona was, to paraphrase new member Georgina Ruff, insightfully designed with “multiple venues both in and out of Barcelona.” The symposium offered “a diversity of papers and session topics..., it's a compliment to the ICOHTEC organizers that we were spoiled for choice!” We owe congratulations to Jan Kunnas and the Programme Committee and to Antoni Roca Rosell and his excellent Local Organizing Committee.

I should like here to summarise the report that I gave to the Executive Committee (EC) and General Assembly in Barcelona.

Travel grants. The Travel Grants Committee, chaired by the Secretary General, gave 12 grants of € 350 each, chosen out of over 60 applicants. Because we could fund only so many grants, the Local Organizing Committee managed to find additional funds to give partial support to the 8 individuals on our reserve list. We regret we could not provide greater travel

support, but we are exceedingly grateful so many individuals were attracted to the symposium.

Elections 2012. I reported on our election for seats on the EC, which for the first time we held on-line. 91 members voted (59% of our membership), and the three seats were filled by Antoni Roca Rosell (Spain), Outi Ampuja (Finland) and Jeff Larrabee (USA).

Elections 2013. Based on the success of the on-line elections this year, the EC agreed to conduct an on-line ballot in June 2013 for our next election of officers, executive committee members and by-laws proposals.

- **Offices to be filled** by election in 2013 include president, vice president, secretary general, treasurer and three members of the EC. Additionally, we elect the newsletter editor.
- **Nominations** may be made by any member of ICOHTEC during the course of the coming year. Simply email your nomination to the President (who chairs the Nominations Committee) or any member of the EC. At the present time, all offices are open for nominees. ***Please know, self nomination is encouraged!***

Membership. The ICOHTEC membership year runs from January 1 to December 31. Members receive a copy of *ICON* for the year in which they have paid their dues, and as long as they keep their membership current have access to the members page at icohtec.org, where they can access back-issues of *ICON* on line.

The EC agreed to form a new **Membership Committee** to develop strategies for increasing membership and work with the treasurer to see that membership renewal notices are distributed in a timely fashion. Yoel Bergmann (Israel) will chair the committee, which includes Maria Callapez (Portugal), John La Prise (Qatar), and Bahar Emgin (Turkey).

Treasury. In order to better manage the activities of ICOHTEC, the EC agreed that beginning this coming year and in all future years, a formal budget should be adopted. It will be the treasurer's responsibility to develop the budget from the advice of officers, EC members and committee chairs.

Statutes. The EC approved several amendments to ICOHTEC's statutes (<http://icohtec.org/about-icohtec-statutes.html>), which were presented for information only to the General Assembly. A membership vote on the amendments can be held after six months has elapsed from the time the EC approves the amendments, and it was agreed we will hold an on-line ballot on the amendments in June 2013, when we elect officers and EC members. The amendments being considered are:

- Article 10: delete: "and delegates of the national groups. The delegates of the national Groups dispose of a number of votes proportional to the number of their

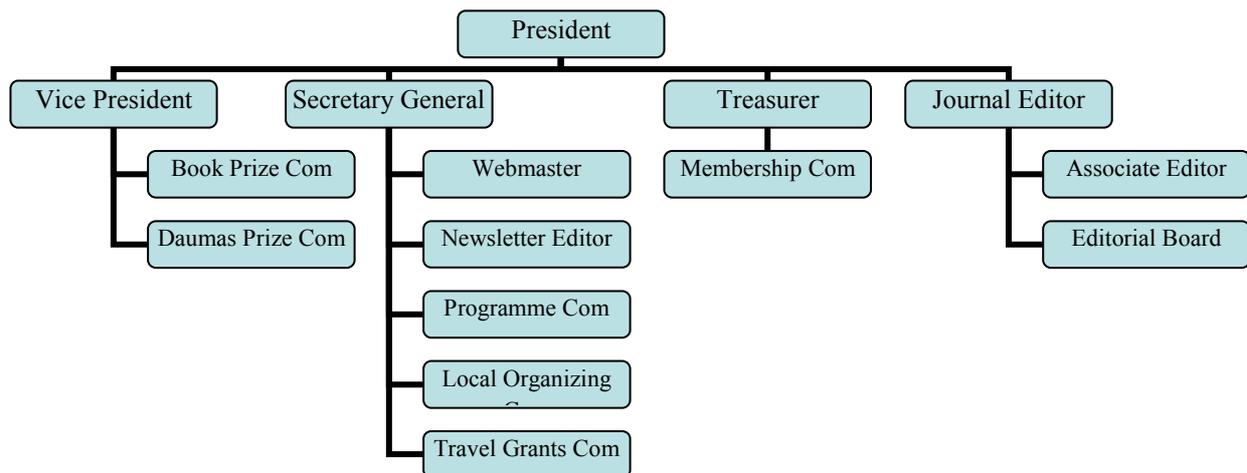
members. The regulation for this proportional representation will be fixed by the General Assembly.”

- Article 11: delete “at least once every four years” and replace with “once every four years.”
- Article 14: delete “five officers” and replace with “seven officers” in two places.
- Article 14: delete “at the regular meeting of the General Assembly” and replace with “of the membership” in two places.
- Article 14: delete “unless one third of the members present at the General Assembly requests a postal ballot of all members currently in benefit, in which event the secretary general shall conduct such a postal ballot within one month of the General Assembly.”
- Article 17: delete “and an editor” and replace with “a journal editor, a newsletter editor and a webmaster.”
- Article 17: delete “The editor” and replace with “Officers will report to and be responsible to the president and secretary general.”
- Article 17: delete “for all publications of ICOHTEC.”
- Article 21: delete “three officers and three other members” and replace with “two Executive Committee members and two other members”.
- Article 22: Add “In lieu of a General Assembly meeting, all members may vote on statute modifications by ballot.”

Summer School and Textbook Working Group. For some time the EC has talked about organizing a summer school for graduate students to be held in conjunction with one of our symposia. This year we appointed a “**working group**” to explore developing a summer school and appropriate text materials for participants. The group will be chaired by Hans-Joachim Braun (Germany) and comprised of Klaus Staubermann (Scotland), Maria Callapez (Portugal), Alla Litvinko (Ukraine) and Timo Myllyntaus (Finland).

Officers and Committee Chair activites. Because our statutes do not explicitly state the duties and responsibilities of our officers and committee chairs, each officer and committee chairperson is being asked to write a “job description” outlining the duties and responsibilities of their position. The EC will review each description be reviewed by the EC for comments and suggestions, and when completed the descriptions will be kept in the official records and the appropriate document be provided to new incumbents.

Organizational Chart. Finally, the EC also adopted an organizational chart to delineate the lines of responsibility in ICOHTEC (see p. 23).



Executive Committee

Officers and Committees for 2012-2013. Just so you know who's on first* (this is an important footnote; don't miss it), here is a list of ICOHTEC's officers and committees for the coming year.

Regular members (each member serves a four-year term; those on the first line have one year left, the second line two years, and so forth)

Vasily Borisov, RUS	Elena Helerea, ROU	Thomas Kaiserfeld, SWE
Kimmo Antila, FIN	Yoel Bergman, ISR	Susan Horning, USA
Maria E. Callapez, POR	Masaaki Okada, JPN	Klaus Staubermann, SCO
Antoni Roca Rosell, ESP	Jeff Larrabee, USA	Outi Ampuja, FIN

Members ex officio ~ The Officers of the Board

James Williams, USA	President, Interim Editor of <i>ICON</i>
Dick Van Lente, NED	Vice-president
Timo Myllyntaus, FIN	General secretary
Patrice Bret, FRA	Treasurer
Mark Clark, USA	Associate Editor of <i>ICON</i>
Stefan Poser, GER	Editor of <i>Newsletter</i>
Slawomir Lotysz, POL	Webmaster
Hans-Joachim Braun, GER	Immediate Past President
Hans-Joachim Braun, GER	Immediate Past Secretary General

* For anyone not familiar with American baseball, this refers to 'who's the runner on first base' as well as a classic comedy routine by Abbott and Costello (<http://www.youtube.com/watch?v=sShMA85pv8M>). After watching this you'll agree, I'm sure, that an organization chart is of value.

Programme Committee for the 2013 Symposium in Manchester

Mark Clark (chair), USA
Maria Elvira Callapez, POR
Anne-Katrin Ebert, GER/AUS
Christopher Neumaier, GER

Programme Committee for the 2014 Symposium in Romania (to be appointed)

Book Prize Committee

Rachel Maines (chair), USA
Peter Jakab, USA
Nina Moellers, GER

Maurice Daumas Article Prize Committee

Andrew Butrica (chair), USA
Martina Hessler, GER
Pierre Lamard, FRA
Susan Horning (chair), USA

Travel Grants Committee

Secretary General (chair)
President
Treasurer

Membership Committee

Yoel Bergmann (chair), ISR
Maria Callapez, POR
Bahar Emgin, TUR

Nomination Committee

Executive Committee as a whole
President (chair)

***ICON* Editorial Board**

James Williams, Interim Editor, USA
Mark Clark, Associate Editor, USA
Hans-Joachim Braun, GER
Mats Fridlund, SWE
Anna Guagnini, ITA
Ian Inkster, GBR
Alex Keller, BGR
Jan Kunnas, SCO/FIN

Miriam Levin, USA
Patricio Saiz, ESP
Eric van der Vleuten, NED

Summer School Working Group

Hans-Joachim Braun (chair), GER
Klaus Staubermann, SOC
Maria Callapez, POR
Timo Myllyntaus, FIN
Alla Litvinko, UKR

V. Updates on ICON

ICON, vol. 15 (2009) was printed and mailed in March of this year, and it was available to symposium participants in Barcelona. Two more volumes will come out this year: *ICON* 16 (2010), a special issue on “Technology and Everyday Life”, which should arrive in the hands of members who paid their dues for 2010 by mid-August at the latest; and *ICON* 17 (2011), which will go to press by mid-September this year and reach members who paid their dues for 2011 by the end of October. It is not too late to pay dues for 2010 and 2011, if you wish to receive these issues this year.

Participants at the Barcelona symposium are encouraged to expand their presentations into an article and submit it to *ICON*. Submissions should be approximately 7,000 to 8,000 words and illustrations are welcomed. Please see the contributor guidelines on the publications page of icohtec.org.

Articles appearing in *ICON* are abstracted and indexed in *America: History and Life*, *Current Abstracts*, *Francis*, *Historical Abstracts*, *PubMed*, and *TOC Premier*. *ICON* is also listed in the *European Reference Index for the Humanities* as INT-2, a journal with international readership with significant (not high) outreach. The editor and associate editor are currently applying for *ICON* to be carried in SCOPUS and J-Stor.

Members who would like to review books for *ICON* are encouraged to contact the editor at techjunc@gmail.com.

VI. Conference Announcements

12 – 14 September 2012

Celebrating European Industrial Heritage. ERIH Annual Conference 2012

Amsterdam

The subject of this year's Conference will be "Celebrating European Industrial Heritage". We are looking for presentations about events (days, nights, weekends or weeks) celebrating industrial heritage. Experiences made, lessons learned and ideas for a "European night of Industrial Heritage".

Please visit <http://www.erih.net/fr/bienvenue.html>

28 – 30 September 2012

Wissenschaft und Ökonomie /Science an Economy, XLIX. Symposium der GWG und 95. Jahrestagung der DGGMNT

Akademie der Wissenschaften und der Literatur, Mainz

Please visit www.dggmnt.de

Please contact the organisers by JahrestagungGWG2012@uni-mainz.de

30 August – 1 September 2012

Neighborhood Technologies. Media and Mathematics of Dynamic Networks

A transdisciplinary conference

Denkerei, Berlin

Concept and Organisation: Dr. Tobias Harks (Mathematics, University of Maastricht) and Dr. Sebastian Vehlken (Institute for Culture and Aesthetics of Digital Media, Leuphana University Lüneburg).

When sociologist Thomas Schelling published his research on housing segregation in major US-American cities in 1971, he accomplished more than just contributing to a novel type of ›social mathematics‹. With Schellings interest in the mechanisms of social segregation and his respective models, the analysis of actual neighborhood dynamics converged with a ›neighborly‹ research method. Starting from some basic local – aka neighborly – micro-relations of a defined number of agents behaving according to a restricted rule set, Schelling dynamically generated macroscopic segregation patterns. Henceforward, neighborhoods in a two-fold way (as objects and as applications) constituted a new research paradigm in which the complex macro-behaviors of a system and the non-linear dynamics of social collectives are generatively and procedurally put forth by rigidly defined microscopic neighborhood relations.

Neighborhoods depict an intermediate or meso-range for the linkage of single local agents with the overall global dynamics of social networks. Today, theories and practices of such Neighborhood Technologies have captured a variety of scientific disciplines: from Sociology to Biology, to Mathematics and Logistics, and to Robotics or Media Studies. Neighborhood technologies can thus serve as a principal element not only of a further understanding of social network dynamics. It can also be of use for developing an adequate (media) history and theory of social networks. The 2012 Blankensee Colloquium engages with these guiding lines from a transdisciplinary perspective.

The ambiguity of neighborhoods as scientific object and as application plays an important role in mathematical optimization and algorithmic game theory. These disciplines search for actual objects and systems where neighborhood relations play an important role – in order to subject them to mathematical analysis. Their major focus lies on predicting, evaluating and qualitatively assessing the state of an uncontrolled system that is determined by distributed actions of (rationally behaved) individuals based on their available information.

Likewise, for some years a growing interest in neighborhood-induced effects can be discovered in Culture and Media studies. Be it the ongoing discourse of *swarm intelligence* and the role of distributed (online) communication networks for political action, be it a media historical approach to *local based media* (e.g., GPS-navigation) and their influence on a transformation of concepts of space and time: Neighborhoods come to be part of not only a topographical and topological, but also conceptual transformation. They become an influential driving force of (global) mass movements, and they transform collectives into eminently technological arrangements.

We attempt to short-cut the above described ›two cultures‹ of a preoccupation with dynamic networks in Culture and Media Studies and Mathematics via a re-wiring of their discourses, theories and applications. We seek to comprehensively address this research field by establishing a platform for the thorough discussion of neighborhood concepts and notions across scientific cultures. Thus, we invite researchers who concretely apply multi-agent systems in their respective research contexts: from Biology, Sociology, Computer science, Architecture, Robotics and Complexity studies. And we also include developers from businesses engaging in the neighborly organization of dynamic networks. With this layout, the Neighborhood Technologies conference alludes to a broader theory of social networks while at the same time originating new neighborhoods between scientific disciplines.

Conference languages: English and German

This conference is the Blankensee-Colloquium 2012, funded by the Kooperationsfonds of the Wissenschaftskolleg zu Berlin, Institute for Advanced Studies.

Co-funded by Leuphana University Lüneburg.

Please find the program on <http://www.uni-konstanz.de/mki/?p=762>

Please contact [Sebastian Vehlken <sebastian.vehlken@leuphana.de>](mailto:sebastian.vehlken@leuphana.de)

12 October 2012
The Great Plains Radio History Symposium
Manhattan, Kansas
CFP – Deadline **1 September 2012**

The seventh annual Great Plains Radio History Symposium will be Friday, 12 October, at the Holiday Inn at the K-State campus. The A.Q. Miller School of Journalism and Mass Communications, the Huck Boyd National Center for Community Media and the K-State Center for Engagement and Community Development are pleased to sponsor the Symposium as a means of preserving important regional radio history.

Plenary Sessions: Baseball Re-creations and “It’s Miller Time!”

A major factor in radio’s early growth was its ability to provide “home and away” play-by-play coverage of minor and major league baseball, which, given the travel, technical and cost restrictions through the early 1950s, was a feat that would have been impossible without “re-creation.” Stations “re-created” road games from their own studios, with announcers narrating action relayed by telephone or telegraph, inserting sound effects and dramatizing the plays to create the impression that they were actually at the opponent’s ballpark. Legendary sports announcer Tom Hedrick of Lawrence, who currently broadcasts Baker University games on KOFO in Ottawa, is one of the few living persons who produced baseball re-creations and will provide a plenary presentation of this lost art.

Bill Miller, who hosts a syndicated radio show on 80-plus affiliates throughout the country, has been a key figure in the development of broadcasting in Kansas and surrounding states. He was the program director for many years at KGGF in Coffeyville, and he has twice been a member of the Kansas Association of Broadcasters Board of Directors. Bill will present a plenary talk on his long career, and the Richard Ward Fatherley Luncheon will honor regional affiliates of Miller’s weekly program. The annual luncheon is presented in the memory of Dick Fatherley, a co-founder of the Symposium and a former program director for the Storz Broadcasting chain. The luncheon will also honor Hutchinson broadcaster Cliff Shank with the Huck Boyd Community Service in Journalism Award.

Call for Papers: As in past years, the Symposium is also seeking scholarly papers and presentations from a mix of academic scholars and broadcast professionals, sharing their research about the history of radio in the Great Plains region. While the focus of the special plenary is live entertainment, topics relating to all aspects of Midwestern radio station programming, station operations, or community involvement are welcome. We will have four to six presentations, augmented by spirited, informal discussions about radio history and current radio practices. This year, the submission deadline for proposed presentations and papers will be September 1. Each presentation should run about 25 minutes, allowing a few minutes for questions and comments. Selected presenters must furnish copies of their

papers and/or presentations on compact disc for archiving at Kansas State University's Hale Library.

Registration: The cost to attend the symposium presentations is \$15 (students will be admitted free). The cost for the Fatherley luncheon is \$15. Reservations for the symposium and the luncheon can be made at the A.Q. Miller School of Journalism and Mass Communications website after August 15 at <http://jmc.ksu.edu> (look for the Great Plains Radio History Symposium link). Address presentation proposals, questions and comments to: Dr. J. Steven Smethers, (smethers@ksu.edu), Associate Director, A.Q. Miller School of Journalism and Mass Communications, 105 Kedzie Hall, Manhattan, KS 66506. Call 785-532-6890 for more information.

Please visit: <http://jmc.ksu.edu>

Please contact: Dr. J. Steven Smethers, Associate Director, A.Q. Miller School of Journalism and Mass Communications, smethers@ksu.edu

10 November 2012

Tide Mill Institute Conference

Bath, Maine

Save the date 10 November 2012, for this year's Tide Mill Institute conference being held in Bath, Maine, a real hub of tide mill activity through the years, more than thirty sites having been documented in a radius of nine miles.

This year's special speaker will be Simon Davis from MOLA, the Museum of London Archaeology. He was involved in the archaeological discovery of a Thames River Anglo Saxon era tide mill in 2009. Because more exploration of that site will happen later this summer, he will be able to offer the latest findings. For details on the discovery, see the November 2009 issue of Current Archaeology, Issue 236.

John Goff will present the history of Winnegance, perhaps the greatest concentration of tidal sawmills in the world, where eight separate sawmills sat on one dam. John Morse, sixth-generation sawyer at his family's Winnegance area tide mill site, will share their story. The day's program will end with low-tide trip to the site.

A special invitation is being offered to historical societies along the coast of Maine, for most coastal towns boasted tide mills. This conference will be a great opportunity for learning about these early examples of America's industrial heritage.

An exciting pre-conference treat is being offered on Friday, 9 November for those interested in viewing remains of a number of tide mill sites in the area.

The program has not been finalized yet; so if you would like to share a special tide mill presentation, please let us know at budw@myfairpoint.net. More details and directions will be distributed later. We look forward to seeing you again this year!

Please visit: www.tidemillinstitute.org

22 – 23 November 2012

Armed Forces in the Period of Decolonisation (1940-1975)

Deutsches Historisches Institut, Paris

CFP – Deadline **5 September 2012**

Recent years have seen a major resurgence in war studies taking the discipline far beyond the narrow confines of operational military history. This regeneration has resulted in classical military history being accompanied by social, economic and cultural history of warfare and societies at war. This has not only been evident in the English-speaking world, but has also been seen in continental Europe. This workshop aims to capitalise on these trends concentrating in particular on the social and cultural history of armed forces between 1940 and 1975.

In the immediate post-war period western European (in particular the British, Belgian, French, Dutch and Portuguese) armed forces went through similar experiences in their colonies as well as in their homelands. A comparative approach will allow us to not only to better understand the specific experience of their armed forces, but also to put this experience into a wider historical context.

The social and cultural transformations of the military institutions are at the heart of our project. The workshop aims to discuss a range of topics such as social structures, anti-guerrilla warfare, interpretation and application of the laws of war, gender studies, the impact of modernization, the evolution of social representations and customs within the armed forces. In addition, we also want to further investigate how the relationship between armed forces and society developed in the in the domestic setting as well as in the colonies. Furthermore, we will try to understand the differing forms of combat, how these were experienced and perceived within the different forces. How was knowledge transferred between the armies and between the conflicts? Were there continuities between the Second World War and the colonial wars and between the different colonial theatres (doctrines, personnel and politics)? How did the doctrines and know-how circulate from generation to generation and from country to country? In what ways did academics and intellectuals influence this knowledge transfer? This leads us to the complex relations between armed forces and civilian authorities (government, etc.), which were often characterized by tensions and divides. Last, but not least, we want to investigate the relationship between the armed

forces and civilian society in the homeland and in the colonies. We are particularly interested in the roles of indigenous (native?) auxiliary forces and colonial troops.

This workshop is organized by the research group »Histoire sociale et culturelle de l'armée française pendant la décolonisation« of the German Historical Institute in Paris (IHA) as well as the European network »Armed forces in the times of decolonisation« (Paris 1 – Panthéon-Sorbonne (Dr. Raphaëlle Branche), University of Birmingham (Dr. Peter Gray), La Revue Historiques des Armées (Col. Dr. Frédéric Guelton), University of Sienna (Prof. Nicola Labanca), IHA (Dr. Steffen Prauser)). This call for papers appeals particularly to academics and doctoral students working on the European armed forces during decolonisation. Applications by researchers working on the German and Italian armies during the Second World War are also welcome. We particularly encourage papers on comparative studies-including diachronic comparisons of the German and Italian armies.

Hotel and a contribution to your travel expenses will be offered.

The deadline for applications is 5 September 2012. Please send your CV and a short description (max. 500 words, in English) of your research project. The conference will be held at the German Historical Institute in Paris. The working language will be English.

Please contact: Dr. Steffen Prauser, sprauser@dhi-paris.fr for more information or to submit your application.

20 April 2013

Ways of Knowing the World: History and the Senses

Hagley Museum and Library, Wilmington

CFP - Deadline **31 December 2012**

The Hagley Graduate Program at the University of Delaware invites scholars across disciplines to submit proposals for our biennial conference to be held April 20, 2013. We seek submissions which consider the historic role of sensory perception in the human experience—including those that look beyond the Aristotelian conception of the five senses.

Like all animals, human beings rely on their array of senses to interpret their changing environments. In the last few hundred years a wide range of technologies has extended human sensory experiences transforming the ways in which people navigated and engaged with the world. We imagine a conversation that might include but is not limited to the following questions: How have societies constructed the meaning of various senses? How have our sensory experiences been mediated by technology? How and why have specific cultures prioritized certain senses over others? How have human beings utilized animal sensory capabilities? What are the ramifications of the truly novel sensory experience

created by sonic warfare, genetic mapping, mass advertising, or industrialized food systems? In what ways does studying the senses clarify the historical tension between epistemological and ontological perceptions?

The Hagley Fellows have been holding biennial conferences since 1989. We welcome proposals by both established scholars and graduate students. Financial assistance for travel may be available for conference presenters. Please send a 300-word abstract and a one-page CV to the Hagley Fellows at hagley.fellows@gmail.com by December 31, 2012.

Please visit: <http://bit.ly/hagleyfellows2013>

4 – 5 October 2013

Congrès de l'Association Française d'Histoire Économique

Université Lille

CFP – Deadline **15 September 2012**

Please visit <http://afhe.hypotheses.org/1192>

Please contact the organisers by afhe.association@gmail.com

VII. Call for Contributions

Technoculture, the Retro Issue, Vol. 3, 2013

Technoculture, <http://tcjournal.org>, will begin accepting articles and creative works for its 3rd Volume, the Retro issue. Submissions will be accepted from 1 September 2012 through 31 August 2013. Publication of Volume 3 will run from 1 January 2013 to 31 December 2013.

We seek creative works that use new media and/or are on the subject of technology, and essays from a broad a range of academic disciplines that focus on cultural studies of technology. Essays we publish examine the topic “technology and society,” or, perhaps, “technologies and societies.” For Volume 3 (2013), *The Retro Issue*, we are particularly seeking essays and creative works that focus on lost, ancient, old or dead technologies, technologies that no one uses, or very few people still employ. Topics could include depictions of technologies that treat a wide range of subjects related to the social sciences and humanities. These subjects might include:

- technologies once popular that are no longer used, such as 8-track tape
- film and television as technologies (especially in the early days of television and film)

- celebrities' use of technology in a given historical moment, such as the early days of television or the heyday of radio
- politics and technology, especially historical approaches
- music production and dissemination, especially historical approaches (such as Listz' transcriptions of entire Wagner operas and Beethoven symphonies)
- visual artists and their use of (or flight from) given technologies, especially historical approaches
- literary depictions of technologies (especially in works from other decades than our own)
- computer/video gaming (older games, rather than newer games)
- the dissemination of the arts via technology to broad or to specialized audiences in particular historical moments
- the disappearance of a given technology or technologies and what that disappearance/disappearances means/mean for the archival issues that surround the humanities.
- sports and sports figures of the past
- memorabilia and collectibles from the past

In particular, we are interested in a conception of “technology” and the “humanist impulse” that pushes beyond contemporary American culture and its fascination with computers; we seek papers that deal with any technology or technologies in any number of historical periods from any relevant theoretical perspective with a particular focus on old, dead and lost technologies for this issue.

We will publish scholarly/critical papers in the latest MLA citation style, but also creative works including poetry and creative non-fiction are of interest to us. We will publish art work and especially media designed for display/dissemination on a computer monitor including still images, video or audio.

Technoculture is published continuously; we accept submissions for Volume 3 (2013) between 1 September 2012 and 31 August 2013. Authors of all materials are welcome to submit abstracts and inquiries for critical works, creative works and reviews.

Please contact editor@tcjournal.org if you have questions.

VIII. Miscellaneous

Larry Epstein's collection on the history of technology in the Library of London School of Economics

The Library is pleased to have been able to add a significant collection of over 400 books from the library of the late Stephan (Larry) Epstein (1960-2007), Professor of Economic

History at LSE. The books have been integrated into LSE Library's collection, but may be browsed

together<https://exchange.lse.ac.uk/exchweb/bin/redirect.asp?URL=https://catalogue.lse.ac.uk/Search/Results?lookfor=%26type=AllFields%26filter%255b%255d=canned_facet:%2522Eps tein%2522%26sort=title>.

The books were collected in connection with a project on the role of technology in the pre-industrial world. The emphasis is on the history of technology in Europe, but there is additional material on non-European topics and on the development of technology generally. Much of the material is related to specific branches of industry, such as building, ship construction, textiles, glass, metal working.

IX. Recently Published Books

Kühsehl, Oliver / Eder, Franz X. / Siegrist, Hannes (eds.): Konsum und Nation: Zur Geschichte nationalisierender Inszenierungen in der Produktkommunikation. Transcript, Bielefeld 2012.

The book 'Consuming and Nation' asks how advertising employed the concept to bound products to specific countries in the 19th and 20th centuries. In which ways and by which institutions were such dedications developed and promoted? The sampler is dedicated to an international comparison. Our member Artemis Yagou analyses national production and consumption in Greek advertising.

X. Join ICOHTEC

An ICOHTEC membership makes you a member of the scholarly network of the UNESCO-based International Committee for the History of Technology, ICOHTEC.

The membership includes:

- Reduced fees for ICOHTEC's conferences
- ICOHTEC's reviewed journal ICON (published annually, ca. 200 pages)
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- ICOHTEC's electronic Newsletter (published monthly – available via mailing list and on the homepage)

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Membership in ICOHTEC includes subscription to the journal *ICON*, access to back issues of *ICON* in electronic form on ICOHTEC's web site, reduced registration at ICOHTEC's annual symposium and a monthly newsletter.

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