

# New Methods to the Teaching of TV Journalism

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**Abstract:** *This article is devoted to the need for innovative approaches in the training system for television. The intensive development of television and multimedia technology, in particular, optical technologies in telecommunications, has been observed in recent decades, this opens up new opportunities for the creation and organization of television production and has a direct impact on television content. In light of this, it seems that television journalists, directors, cameramen and other representatives of the creative professions on television need to have professional knowledge of modern television technologies. And vice versa, it is advisable for technical specialists to get a general humanitarian training and understanding of the nature of mass communications. This will ensure the comprehensive and harmonious development of all segments parallel to the television industry. Moreover, the authors provide evidence of unique historical facts of the formation of the period of mass broadcasting in Russia.*

**Keywords:** *television, optical technologies, Republic of Tatarstan, RadioPribor plant, Kazan Optical and Mechanical Plant, telecentre.*

## I. INTRODUCTION

Television as a sociocultural phenomenon is a synthetic medium of mass communication, the informational, and educational and entertainment functions of which are in constant interaction and contrast. New trends in the Russian television industry, which are characterized by features such as the spread of high technology, multichannel, convergence and mobility, require a more practical approach to the training system for specialists in this field.

Practice-oriented training involves the parallel development of the theory with students - future professionals and their familiarity with all cycles of television production.

In Russian universities involved in the training of television personnel, students are traditionally divided into creative and technical areas. Art schools are building a television training system based on humanitarian educational and professional cycles. Technical institutes orient their students to the study of natural sciences and the acquisition of technical knowledge. However, television is a unique professional field, where technical equipment and knowledge of modern technologies largely determine the development of creativity in television. For example, television journalism and various art forms. The intensive development of television and multimedia technology (in particular, optical technologies in telecommunications) observed in recent decades opens up

new opportunities for creating a television product and organizing television production, and, consequently, the most direct impact on television content.

In light of this, it seems that television reporters, directors, cameramen and other representatives of the creative professions on television need to be proficient in modern technology. It seems appropriate for technical specialists to get a general educational and humanitarian picture of the nature of mass communications, necessary for understanding the specifics of television as a mass communication medium. This will ensure the harmonious development of the integrated television industry on the way to its many segments.

## II. HISTORICAL RETROSPECTIV: BIRTH OF TELEVISION TECHNOLOGY - A VIEW FRUM RUSSIA

Historical retrospective during the birth and formation of mass broadcasting in Russian the historical retrospective from the birth and formation of mass broadcasting in Russian to the present moment only proves the objective necessity of such an approach.

As you know, experiments on "remote viewing" and the development of the first projects were carried out already in the 80s of the XIX century. Portuguese physicist Adriano de Paiva and French inventor Konstantin Senlek technically substantiated the possibility of "electric telescopes" in their work. They actually predicted the principles of mechanical television. Three years later, a German student P. Nipkov invented a method for sequentially decomposing a projected image into separate elements using a rotating disk with holes. This disc was later named after the inventor and was used in many mechanical television systems.

In 1885, in the journal *Electricity*, an original television project was published under the name *Telephoto Lens*, published by Russian inventor P.I. Bakhmetev. And after 14 years, participants in the All-Russian Electrotechnical Congress, including A.A. Polumordvinov, were noted in the same journal. A 26-year-old engineer from Kazan made a presentation on his *Telephoto*.

However, as you know, television finally ceased to be a transcendental dream only after switching from a mechanical path to an electron path, when an inert and slowly moving mechanical switching system replaced an instantaneous electron beam. This approach was first proposed by the Russian scientist B. L. Rozing in 1907 [2]. Four years later, a professor at the St. Petersburg Technological Institute received the first simple electronic image. The invention of the cathode ray tube is considered to be a reference point in the development of television.

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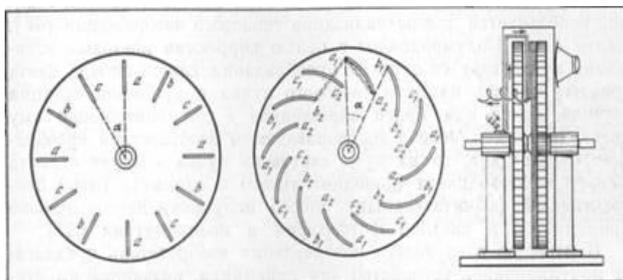
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All this happens in the first decade of the twentieth century, and the Kazan engineer, and the teacher of the Kazan Industrial School Alexander Polumordvinov invented his system in the late nineteenth century.

A.F. Orlova in his book describes in detail the diagram of the apparatus of A.A. Half Mordvinov. According to her, he developed it in less than two years [3]. The design of the device, called the inventor Telefot, was supposed to send images at a distance with all colors, shades and even shadows. The system was based on the theory of three-color vision using an optical-mechanical system. The basis of the machine A.A. Polumordvinov made a light distributor, which allows you to decompose a color image into three primary colors, and then synthesize in a receiving device.



**Fig. 1. A.A. Polumordvinov and his light distributor**

The inventor proposed three design options for light distribution. In the first embodiment, it was proposed to use a disk with two holes that are located on the same axis and rotate at different angular speeds. The first penetrates into the slot of the disk along radial lines, and the second - along a curved arcuate. During the rotation of the gap and the overlap of the disks, a through hole of a diamond-shaped form is created. The number of slots on the disk was selected as a multiple of three. The slots on one of the drives are alternately made of red, green and purple glass. The wheels were connected in double gear and rotated in the same direction at different speeds. Each such gap created one image. By the time the first row runs around the first row, a new working gap begins, which, in turn, reads the second row, etc. The light passing through the rhombic hole was converted using a photodetector into an electrical signal that was supposed to pass to the collection point and used to control the brightness of the light on the same receiver.

The second embodiment of the distribution of light differs in that instead of two disks, concentric cylinders are proposed that rotate one inside the other. In the third embodiment of the

device, two prisms with the same number of mirror faces rotate along mutually perpendicular axes [5].

It is indicative of the development of television in the regions of Russia that the first television stations appeared thanks to enthusiasts of the amateur movement. The mid-1950s went down in history as the beginning of the scientific and technological revolution in the USSR. It was during this period that instrument engineering, electronics and electrical engineering, the chemical and other industries actively developed. These scientific and technical areas were not only supported by state programs, but were often initiated "from below". By the end of the period, there were 12,500 innovators and inventors in Tatarstan [5].

Given the great interest of the people in the "miracle of the twentieth century", the series "Mass Radio Library", edited by academician A.I. Berg, began to publish articles on television in 1948. In the period from the late 40s to the end of the 60s, 45 articles were published (their authors are V.V. Shmakov, A.Ya. Klopov, G.I. Byalik, P.E. Chernov, L.V. Troitsky, E.V. Metuzalen, E.D. Iceberg, etc.), which provide a detailed description of the technical parameters of impromptu television, amateur television centers, etc.

Soviet radio amateurs before the mass production of televisions assembled amateur TVs according to these schemes. For example, in 1938 in Kazan, home television B-2 was shown at a city exhibition organized by the OSOAVIAHIM City Radio Club (later DOSAAF). According to a home-made project, the B-2 neon lamp is connected to the output of an additional speaker, the sound was broadcast to radio stations.

Of great importance for the development of television in the regions was their industrial potential. For example, in the economy of Tatarstan (now the Republic of Tatarstan), factories working for the defense industry occupied a special place, designs and infrastructure were developed. The outstanding achievements of design ideas created for the needs of the defense industry, as a rule, were not used for any social production. After the death of JV Stalin, "warming" in economic policy was reflected in the fact that some defense enterprises began to receive orders for the mass production of consumer goods.

For example, the Kazan plant "Radio device". One of the activities at the plant was the development of television sights for military aircraft. This, according to the memoirs of a former plant engineer and employee L.M. Shapiro, played an important role in the generation of ideas, and then in the formation of Tatarsky's amateur television.

On the initiative of the chief engineer of the plant B.V. Tarkhanov and thanks to his efforts, this defense plant was entrusted with the production of the Zvezda television set (later Zarya). A similar order was received by factories in Moscow and Leningrad. There was no experience in the production of television equipment at any enterprise in the country, nevertheless, workers at the Kazan plant risked taking on the task of finalizing the serial production of a television receiver, the production documentation of which was created by one of the Moscow research institutes under the direction of A.I. Berg.

As a result, the television managed to be put into mass production in May 1954.

Among consumer goods, he released 3,000 Zvezda televisions per year [5]. In 1954, it was planned to increase their production to 6000. It is significant that in the same year six contests for inventive and innovative works were held at the plant, including the improvement of the box design in order to preserve the production of televisions and reduce the complexity of its production.

However, the "Star", made in Kazan, received a lot of complaints from customers. This is due to the fact that the new TVs were almost unadjusted. To do this, either a telecentre or special equipment for tuning was required - KITU (television test and control unit the factory ordered KITU in NII-380 (Leningrad).

Using CITU has improved the quality of television, but not by much. And it was decided to stop the production of televisions in Kazan. The remnants of the Kazan series were bought by factory workers. And then the initiative group of the plant's radio engineers, taking into account the current situation, proposed to create a radio amateur television center on the basis of the freed KITU, since there was no plan to create a state television center in Kazan at that time. To turn KITU into a television center, it was necessary to solve several complex technical problems, namely, to develop, manufacture and configure a number of input and output devices so that they work in conjunction with KITU. Subsequently, the idea of organizing on Kazan television received strong support from the DOSAAF Kazan radio club. Later, Kazan Optical and Mechanical Plant joined in this work. The telecentric lenses appeared to help him. And in 1957, the plant received a special order from the Minister of Defense of the USSR (No. 121 of April 19, 1957) for the development of new consumer goods - the Kama film camera and the 8P-1 projector". [7-10]

In 1954, radio amateurs made a power amplifier, assembled a television antenna and, thus, a television center was formed in the radio club, which later became known as the Small TV Center, which broadcast television programs until 1959, before the commissioning of the state television center. On January 20, 1955, a meeting was held at the plant, which brought together representatives of factory workers, specialists from the directorate of the broadcasting network of Kazan, Kazan State University, Kazan Aviation Institute and the radio club DOSAAF. It was decided to organize experimental broadcasting (according to the All-Union standard). The general guidance for the construction of the Small Telecentre was entrusted to A. Trashkov, head of the DOSAAF Kazan Radio Club, the technical advice was taken over by the aforementioned technical council. The director of Radiopribor I.M.Shpakov promised to provide the opportunity to use the factory KITU for experimental transmissions, as well as provide technical assistance in preparing and setting up the necessary units for allocation of four televisions for temporary use to verify the quality of the experimental equipment.

These historical facts confirm our thesis that the first stages of the development of television in Russia are associated with the development of technology. Subsequently, technical innovations such as mobile television station (MTS), video magnetic recording (VMP), color television equipment - marked a qualitatively new stage in the development of journalism, characterized by the development of reporting, television magazines, television films and dramas, the expansion of expressive means of television.

### III. GENESIS TO SOLVE THE PROBLEM OF TRAINING FOR TELEVISION

The intensive development of equipment for television broadcasting and mass production in the regions of the Soviet Union posed an acute personnel problem. "The Coming of Amateurs" called the years of the formation of Russian television G.V. Kuznetsov. "There are no educational institutions for training personnel or specialists in television. We have gathered everyone who is addicted." - said the chairman of the Committee on Television and Radio Broadcasting of the TASSR M.F. Debts at the conference of viewers, organized by the Kazan Studio on April 1, 1960 [9-11]. "Sometimes we are forced to take random people ... Of the 12 directors, only two have a special education, the rest can be called masters," - noted in the report of the secretary on the ideological work of the regional committee of the Tatar Communist Party M.Z. Tutaeva at the national meeting of radio and television on May 31, 1961 [8].

A significant part of the first directors are people who have passed the theater school. Professional television operators in the Volga region also had nowhere to cook, so the studio specially sent its employees to study at universities and willingly accepted experienced colleagues from other regions into its staff. Many of the employees of the television studio began their career on another amateur television, then, after the opening of the state television center, they went from assistants to assistant directors, and then became high-profile editors, directors and cameramen.

Due to the lack of special television training in the region, there was a need for targeted convergence of journalists from different media [1]. A deep understanding of local television, its difference from other media appeared later. The first professionals of the Tatar television, as well as the television of other autonomous republics of the Volga region, worked for a long time on radio and in newspapers before entering the studio of national media. It was these experienced journalists who introduced the basic principles of journalism into the studio work - efficiency, competence and objectivity. "This was an era of live broadcasts ... I had to learn not from textbooks, the wisdom of television art was comprehended in the very process of creating programs," recalls one of the Tatar television veterans, announcer Liya Zagidullina.

In addition, the television studio organized regular trainings for its directors, editors and agents. Attendance at these classes was monitored by the party bureau. The Union of Journalists of Tatarstan held monthly workshops and schools for freelance writers. The State Committee on Radio and Television of the USSR used various forms of training regional studio seminars, peer reviews, and correspondence courses.

Here are a few numbers. On Tatar television in 1959, out of 116 employees of the Kazan television studio, only 37 had higher education [9]. A significant number of people came to the studio with secondary specialized education or simply secondary, and this is mainly technical personnel. Statistics revealing the qualitative composition of television workers was prepared in 1962 for the regional committee of the

Communist Party. Out of 22 editors with higher education, 17 out of ten directors - eight out of 12 film and television directors - are only 1. "The group of directors varies in their professional level. About 60% do not cope with their duties professionally" wrote H.S. Shakirzyanov [9-12-13]. For comparison, in 1965 the number of people with higher education was 42 (graduated from the university - 20 people, with a degree in journalism - 2 people). After 10 years, these numbers almost doubled: 89 studio employees had higher education, 45 - university. There are already 18 trained journalists. These numbers are shown in the Table 1.

**Table 1. The staff of the Tatar television (1959-1965)**

Education / Year	1959	1965
Total number of graduates	12	20
University: native language and literature	5	6
University: Russian language and literature	6	7
University: journalism	1	2
Institute of Education and Culture	12	11
Schools of art	7	9
The total number of those with higher education	37	42

The increase in the number of domestic television workers with postgraduate journalism education can be explained by several factors: the growing popularity of the profession, the increasing practice requirements for the profession, and, finally, the creation of a system for training professional journalists in the region. In 1961, he opened the Faculty of Journalism at Kazan State University. But specifically, for television, journalists began to be trained only at the beginning of the 21st century.

#### IV. CONCLUSIONS

At present, in Russia, the traditional classical system of training journalists in the Soviet era is being observed in parallel; higher schools of television have begun to appear. An analysis of the curriculum of higher television schools in Moscow and St. Petersburg shows that these schools operate in parallel with weekly production practices on their own television channels on the Internet.

This trend is due to the very intensive development of television and electronic media, beyond which the classical system of training journalists is not in time, and, as a result, there is dissatisfaction with the staff of television producers.

Today, broadcasters require highly qualified specialists in basic technical aspects of electronic media. In the modern television industry, journalists are in demand, possessing, in addition to creative journalistic abilities, skills and editing, camera shooting and editing, and even producing projects.

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