

RIT Reporter

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No. 15

Radio Club Organized

A new professional organization has been added to the school's long list of activities.

The Electrical Department students in the spring quarter of 1959-1960 began the organization of a campus branch of the Institute of Radio Engineers.

The purpose of the IRE is the dissemination of the theory and practice of electronics, communications and other related fields of engineering and science, as well as the furthering of the professional development of the student.

The organization of this group climaxes a long period of hard work on the parts of many students. The first meeting found Harry Beardsley, (now Elec. V), appointed temporary chairman and Pete Clark, (Class of '60), secretary. At this meeting a constitution committee composed of Pete Clark as chairman, Al Gutzman and Thomas Frantz was formed. The second meeting discussed and adopted the constitution, and a petition to the IRE which were sent to IRE headquarters for approval.

A charter for the RIT Student Branch of The Institute of Radio Engineers Incorporated was received from the IRE at the end of fall, 1960.

The first meeting of the chartered group was held Jan. 26, with 33 in attendance. The aims and objectives of the group were discussed and questions were answered by Prof. Piotrasche, IRE Student representative and faculty advisor.

Officers who were elected for the remainder of the school year are: President Harry Beardsley; (Elect. 5), Vice President, Wilhelmina Haruk, (Elect 4); Record-Secretary, Andrew Bedrin (Elect. 4) and Treasurer Carol McKeithan (Elect. 3).

The IRE is open to all upper class students in the Electrical Department. Freshmen are eligible to join the chapter and attend the meetings, but may not join the IRE until their second year.



FROZEN ART—Inter-fraternity snow sculpture competition produced this trophy winner of a Greek god taking his ease amidst broken marble columns. Phi Sigma Kappa sponsors the annual event.

SW Theme: World's Fair

"Worlds Fair!" This is the theme for the activities on Friday of Spring Weekend.

This theme was definitely decided on by the Spring Weekend Committee when they held their weekly business meeting on Tuesday, Feb. 7.

Still undecided on is the location for the Saturday night dance. Sites under consideration for the dance are the War Memorial, the Masonic Temple and the Ritter-Clark Memorial Building.

Another change being considered for this year is a new point system for basing the judging on.

RIT Reading Lab Expands Courses

The RIT Reading Laboratory will again offer courses and services during the summer sessions, for improving student effectiveness in both study and general reading.

This summer, a new course Reading Fundamentals, is being offered for grades five through seven. It is designed to increase reading power.

Two reading courses were expanded this year. These courses are; Reading Improvement, designed to improve reading and study skills on a college level and Better Reading Techniques, which is for adults that need improvement in their reading techniques.

Also being offered again this summer will be Reading Guidance for grades eight to ten, and Reading Improvement for the eleventh and twelfth grades. Individual instruction will also be available.

Preliminary testing diagnoses individual capacities and needs. Arrangements for this testing must be made with the Reading Laboratory before July 5.

NCCJ Director Speaks Today At Luncheon

Speaking to those attending the Newspaper Conference at their noon-time luncheon will be Dr. James M. Eagan, vice president of the National Conference of Christians and Jews.



Dr. James M. Eagan

Dr. James M. Eagan, who served from 1946-49 as Chief of Religious Affairs in the Office of Military Government for Bavaria, Germany, is vice-president and Northeastern Divisional Director of the National Conference of Christians and Jews. In this capacity he supervises the activities of the NCCJ in the states of New York, Pennsylvania, Maryland, Delaware, New Jersey, Northern Ohio, and the entire New England territory.

Born in Beacon, New York, Dr. Eagan was graduated Phi Beta Kappa from Columbia College in 1932 and received in 1935 the degree of Doctor of Philosophy in history. From 1935 to 1944 he was on the faculty of the College of New Rochelle.

From 1944 to 1945 he served as a field director of the American Red Cross in England. During his three years tenure with the Office of Military Government (1946-49), he helped to organize the first Councils of Christians and Jews in Germany, which are now associated with World Brotherhood organized in Paris to lessen racial, religious and national hostilities among the peoples of the free nations. From 1949-51 he was Dean of Lewis College, located near Chicago.

He is a former vice-president of the Catholic Association for International Peace and is a member of the Executive Council, American Catholic Historical Association. Active as a writer and lecturer, he is the author of "The Pope's Peace Program and the United States", "Robespierre, Nationalist Dictator", with W. C. Langsam, "Documents and Readings in the History of Europe since 1918", and "Cultural Pluralism in American History." He

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in this issue
matrix!
an occasional supplement

Newspaper Editors Meet Here Today For News Conference

Puzzled by so many people running around the Institute with paper and pencil in hand, asking everyone they come upon if they know of any great earth shocking events that are worthy of being put into print in a college newspaper?

Today, we are host to over 100 college newspaper editors and advisors from all over western New York State. These people you see running around with pencil and paper are attending this conference.

Editors, reporters, photographers and numerous other people required for the putting together of a college newspaper, are attending the Second Annual College Newspaper Conference. Purpose of the conference is to discuss and investigate the problems faced in the production of a student operated college newspaper.

Highlighting the day's activities will be a luncheon talk by Dr. James Eagan, vice president of the National Conference of Christians and Jews. Also featured will be a tour of the Gannett newspaper facilities, which will take place after lunch.

The conference is jointly sponsored by the two local Gannett papers, the Rochester Times-Union and the Democrat and Chronicle, and RIT.

Filling the conference day will be specialized clinics and panel discussions. Serving as leaders of the various clinics will be professional newspaper people from the Gannett papers and business men from the Rochester area. Also serving as leaders of the clinics and the various panels will be

Council Notes

Brainstorming, a rapid fire idea session within a group designed to stimulate creative, free, and constructive thinking was used in Monday night's council meeting in an effort to relieve some problems before council.

The session saw as many as 65 suggestions and ideas come forth in five minutes time.

The problem of social events; what type of events are needed for students at RIT, was the first topic opened for ideas. As an example of the way the session was handled, here are a few of the responses from the group on the social activities question.

To begin, Greek sponsored events for the whole student body, a party given by the faculty for students, dances after basketball games, co-ed splash parties, sport contests between faculty and students, and finally a Greek party sponsored by fraternities of colleges in the Rochester area for all students.

faculty members of the various schools that are attending the conference.

Registration and coffee hour will be held from 9:00 to 9:30 a.m. in E-125. Mr. Alfred Davis, vice president, public relations will deliver the welcoming address at 9:30. Following will be a short orientation talk by Gene E. DePrez, Editor-in-Chief of the RIT Reporter.

The rest of the morning will be taken up with the various clinics. At 9:55, three clinics will start. These clinics are: News, Feature Writing and Editorial, Photography and Artwork and Advertising. Leaders for the News, Feature and Editorial Clinic will be Cal Mayne, assistant editor of the Rochester Times-Union. Roy Hetzler, Layout Administrator and Curt Barnes, News Photographer will be at the Photography and Art seminar while the Advertising clinic will be handled by Merrell Dubois, Advertising Director for the Gannett papers.

Following these clinics will be a General Forum with Miss Betty Katz, University of Rochester English instructor; Charles J. Meder, St. John Fisher English Professor; Miss Betty Heller, director of public relations at Geneseo State College and Dr. Arthur Lee, faculty advisor of publications at Brockport State College, participating in the forum.

After returning from lunch and the tour of the Gannett papers, two panel discussions will take place. Moderator of Panel A, Staff Selection, Organization and Training will be Mr. Hector H. Sutherland, faculty advisor of the RIT Reporter. Heading Panel B, Campus Campaigns and Crusades will be the Dean of the School of Journalism at St. Bonaventure, Prof. Russell Jandoli.

A joint session on Public Relations will take place at the close of the panel discussions. Discussed will be the use of a college newspaper public relations staff; how to set up and maintain this staff; public relations programs and activities; keeping the college newspaper in the public eye. Leader of this session will be Ira C. Sapozink, promotion and public relations director of the Rochester Times-Union.

At 3:30 the conference wind-up will take place.

Colleges attending the conference include the University of Rochester, Nazareth College, St. John Fisher College, Houghton College, Brockport State College, Robert Wesleyan College, Geneseo State College, St. Bonaventure University, Keuka College, Wells College, Hobart-William Smith Colleges, and RIT.

EDITORIAL

Welcome Newspaper Editors

On behalf of the Institute and the members of the Editorial Board and staff of the Reporter, we would like to welcome all the college newspaper editors and their advisors to the Second Annual College Newspaper Conference, which is being held here at RIT today.

We, with our co-sponsors the Gannett newspapers, have set up this conference so that we may bring to light and investigate the problems facing the student operated college newspaper.

We know that it takes much planning, time and work to publish a student operated college newspaper, be it a monthly, bi-weekly, weekly, or daily publication. Therefore, we hope that out of this conference will come ideas that will help you in the running of your own paper.

By talking to the other editors, finding out their problems and how they solve them and by asking questions of the professional people, much can be learned that could make your job easier and result in your paper being run more efficient.

Again, welcome, and here's hoping that you leave this conference with more information on how to run a college newspaper than you had when you arrived.

Matrix: Visual Communication

Matrix appears for the first time anywhere as part of this issue of the Reporter. It is being planned as an occasional supplement, which will be edited, designed and printed at the Institute. Editor of Matrix is Dr. Maurice Kessman, director of the Office of Educational Research at RIT. Prof. Hans Barschel of the School of Art and Design is art director and Mr. Herbert Phillips of the Graphic Arts Research Department is production supervisor. These men will coordinate the efforts of all who wish to participate in the development of this new publication.

Matrix promises to be a unique experiment in visual communication and deserves our support. For this reason, the Reporter is proud to include it in our regular publication schedule. It is an example of what we can do and is another step in the ever expanding coverage on the collegiate level, which we are planning to offer our readers. We hope to be able to again include Matrix in many future issues of the Reporter.

You are invited to drop your comments and suggestions in the new Reporter mailbox now in the Eastman Building.

A New Flag Does Proudly Fly

It is indeed gratifying for us to think that our small voice may carry some weight among official circles here at RIT.

In a recent editorial (Jan. 20, 1961), we commented on the condition of the American flag in the Veteran's Memorial Square.

We said in our editorial, "For the entire fall quarter and so far this quarter the flag has not been lowered! It was put up on the pole and left there."

Within what seemed like no time at all, a new American flag could be seen proudly flying above the Square. This new flag is being put up each morning and taken in each evening. This is the way that it should be done.

We have learned that this flag is being repaired and will probably soon take its place in the Veteran's Memorial Square.

It is not that we want to make out that we are all powerful and can get everything we want changed. There are traditions that have come down over the years on how to display the American flag. We are glad that the flag is again being displayed with the proper respect here at RIT, and hope that it will continue to be displayed in such a manner in the future.

An Editor's Fairness

How fair should an editor be?

He should not be so fair as to knock down his own arguments. Or employ columnists to destroy his efforts. Or be so eager to placate possible opposition as to seem timorous and indcisive.

If an editor has an opinion, he should try to make it prevail. He will not do so with too much "on the other handing."

His opponents will have their chance to fire back in the letters column.

Real fairness lies in supporting one's opinions as forcefully as possible while giving the opposition a chance to express it's own ideas.

After all there's only one absolute standard in fairness. Blonds.

Letters to the Editor

Dear Editor:

Thank you very much for the Jan. 16 Reporter editorial on the 1961-62 Catalog and its designer and coordinator. It was a real surprise to be recognized and congratulated publicly by the student paper, and Miss Ruth Gutfrucht and I appreciate it.

There is one other person whose work made a significant change in the 1961-62 catalog. He is Mr. Thomas O'Brien, Assistant Professor in General Studies, who wrote the initial revision of the general information section of the book.

Sincerely yours,

Louise Smith

Director of Publications

Dear Editor:

In review of Mr. Kast's question of "who or what group made the final decision to call the snack bar "The RITSKELLER," we submit this answer.

First of all it was unfortunate that the member of Council he spoke to did not know the answer to his question, however, it is even more unfortunate that he does not read the paper of which he has a part in producing. In the Jan. 21, 1961, edition, right on the third page, The Reporter stated, "A student committee, composed of two members of the Student Association, a representative from the Men's Dorm, Women's Dorm, Inter-Sorority and Inter-Fraternity, selected the winning entry. . ." I might add that this selection was made out of approximately 700 suggestions.

Furthermore, all students did have the opportunity to submit their suggestions for the new name for over a week during a well publicized contest.

"Perhaps" there would be far less student apathy if students like he would look, read, and investigate before they took pen in hand and wrote a letter to the editor concerning something they knew next to nothing about.

Better communication as Mr. Kast put it, is not lacking, it is educated and responsible writing that is lacking.

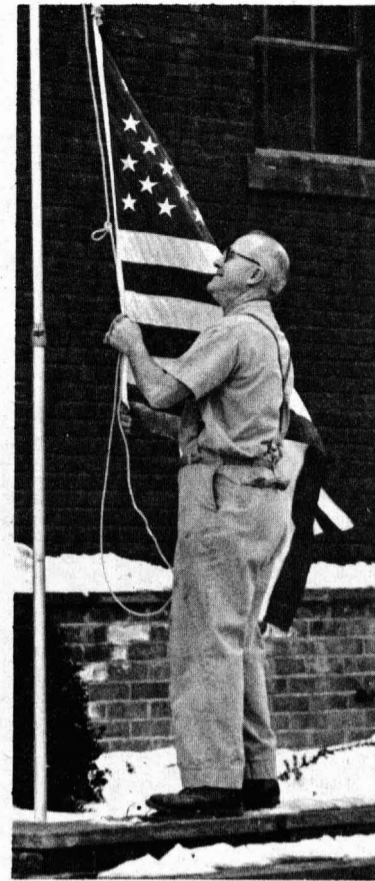
Student Council Foods Committee
Bob Moore
Andy DeMarco

Dear Editor:

Messrs. Eagan and Leader should be complimented on their ability as politicians. They have managed to get Student Council to approve the constitutions of their respective political clubs, and in so doing have managed to get one foot in the door. The clubs were accepted by Student Council on the understanding that S.C. funds would not be used to finance them. However, like all "good" politicians, Messrs. Eagan and Leader are now shrewdly trying to get just a little bit more than they first asked for. And if they succeed in getting S.C. funds, what will they want next?

Supposedly the constitution of the Student Council takes character from and is organized on the basis of that of the United States. I do not believe that there is anything in the laws of this country which allows for financial subsidies to the political parties; indeed if such was the case, the fundamentals of democracy would be violated. Nevertheless, on a smaller scale, this is what our local politicians are requesting.

Robin Lambert



SUNDOWN—The new American flag on the "Quad" is taken down for the day.

GET to Hold Panel

Gamma Epsilon Tau's annual personnel panel for School of Printing seniors will be held Feb. 23 at 8:00 p.m. in the Presidential Room of Nathaniel Rochester Hall.

This year's panel members, all experienced in personnel work, are: Mr. Harry Lyons, Industrial Relations, Todd Co.; Mr. John Groet, Graphic Reproduction Technical Training Center, Eastman Kodak Co.; and Mr. William Mariner, Case-Hoyt Corporation.

Purpose of the panel meeting is to help graduating seniors in the School of Printing learn what potential employers look for during employment interviews.

In addition to the fraternity's membership, all graduating printers have been invited. Refreshments will be served.

Conference Speaker

(Continued from Page 1)

has also served as program chairman of the Catholic Family Institute and program chairman of Catholic PTA's. In this capacity he has been active in setting up Institutes on Rearing Children of Good Will.

In 1957 Dr. Eagan was appointed national coordinator of Financial Development for the National Conference of Christians and Jews.

The Verdict is Yours . . .

All the alibis were perfect and yet strange things had been happening at Kate Gleason Hall.

One night recently certain vital property was pilfered, borrow, or destroyed by a person or persons unknown. (The nature of the property was such that it could not be disclosed.) The thieves left no clues and only by finding those in possession of the stolen property could guilt be proven.

Those immediately affected, therefore, called for an immediate investigation. After alibis had been crossed-checked, no clues could be found. Any possible witnesses refused to testify for fear of later retributions and social discrimination. Consequences of the theft had already been felt by several members of the dorm.

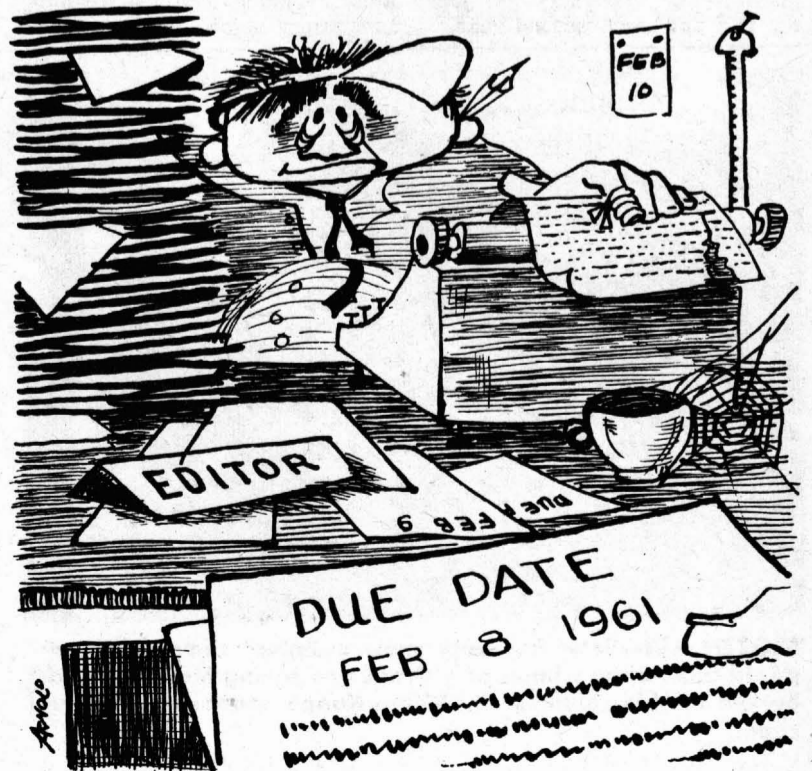
The case seemed to be at a standstill until an ultimatum was issued to the effect that all suspected parties might be held without bail until the property was returned to a member of Delta Omicron Sorority.

Meanwhile the thefts continued. Next struck was Phi Upsilon Phi sorority. Here the thieves ransacked rooms and made off with a variety of items including clothing, stuffed animals and trophies. Due to the value and extensiveness of the theft, a dorm-wide, room-to-room search was started.

The ultimatum combined with the search effected the solution to the thefts and ferreted out the culprits. No legal action was taken as the reasons for the thefts were ruled well justified.

The pledge classes of both Delta Omicron and Phi Upsilon Phi were released under section No. 503 of the Unwritten Pledge Laws that states, "pledges may take revenge on sister sorority members when acting as a group; any actions are subject to recall and nullification at the termination of pledging."

One culprit was heard to remark, "What other defense do we poor pledges have against the frustrations of pledging?"



matrix

AN EXPERIMENT IN VISUAL COMMUNICATION

Winter 1961, Number 1, Volume 1

Introducing an occasional publication concerned with the image of contemporary problems.

Editor: Maurice Kessman, Director, Office of Educational Research.

Art Director: Hans J. Barschel, Professor, Art and Design, College of Fine and Applied Arts

Production: Herb Phillips, Director, Web-Offset Lab.

Graphic Arts Research Department

Rochester Institute of Technology, Rochester 8, N.Y.

Whoever has not felt the danger of our times palpitating under his hand has not really penetrated to the vitals of destiny . . .

Ortega y Gasset

Man seems committed to grand and glorious illusions of progress. He is asked to address himself to the ages yet he cannot escape doing his thinking now, in the present, originating a continuing web and theme of thought and discussion—a dialogue in the true classical sense. MATRIX, in the meaning and use which is relevant here, implies and provides a place within which this discourse can originate, take form and develop. Dialogue is education is communication.

What do people see and express when they think of our times?

We view human expression as significant in man's need to give life's realities dimension, direction, value and meaning. MATRIX will attempt to experimentally extend and enliven the infinite possibilities of reality through the science and art of expression, but only as a prelude to new discoveries of reality.

In this first issue we present a few ideas, however, it is out of the relationships we establish among ourselves, while participating in this enterprise and it is with the fruits of our cumulative efforts, born as we proceed toward clearer expressions of an understanding of our times, that we can expect a prophetic style and image to emerge.

A reason for MATRIX is our belief that R.I.T. exists as a unique potential for making significant contributions to experimentation in education and expression now in progress throughout the world. The Institute's College of Fine and Applied Arts, College of Graphic Arts and Photography and the Graphic Arts Research Department, with outstanding resources in the important media, offer their faculties and students challenging opportunities for interdisciplinary cooperation toward the realization of this great promise. The College of Applied Science, College of General Studies and the College of Business share equally in this potential.

MATRIX seeks people with imagination and vision, who after having given life to their art are looking for a way back from their art into life.

Maurice Kessman



The sun comforts a desolate winterscape with hope of Spring

Strange intangible shadows of fall-out clouds hover as we bravely guide glass-bottomed boats through bleak icy unknown waters urgently searching their depths of darkness for the phosphorescence of meaning

Somewheres in the chill of night the lonely kids on shore nervously play the uneasy beats of our times on gaudy grotesque electric guitars with razor blades as the whole world tunes in on TV

A Plea for SUBSTANTIALISM

Substantialism: The belief that through all changes there must remain real and fundamental values underlying our concepts of genuine human worth, dignity and importance.

Students today, parents tomorrow—

They will perhaps become the cultural leaders of their own community or country. They deserve the best and require the broadest, most advanced in educational opportunities we can possibly give them, so they may better understand and accept the responsibilities of our times. Youth in each generation must be prepared to recognize fundamental problems and find the substantial solutions which will enable us to preserve and develop our humane concept of democracy.

Soon after the outbreak of the second World War, which brought with it prolonged and unprecedented human tragedy, it became evident that the U.S.A. would eventually have to accept full responsibility for the preservation and continued growth of democratic ideals in the spirit in which they were first visualized by the far-sighted fathers of our country. After Yalta, it should have become even more obvious to every American that a demanding fate was forcing this great responsibility on us. Still later, the Berlin blockade and the countless events which followed should have opened the eyes of the most indifferent of our "good citizens" to the fact that we have no choice but to accept this responsibility.

In the face of this responsibility, precious time has already been lost through feeble attempts at self-evaluation and half-hearted adjustments in both our private and public lives. While a life and death battle of nerves and attrition is raging, gadget happy, uniformed egotists insist on milking this supposedly golden era of instant profits and profit sharing stamps. They are hard at work putting all their efforts into developing a super-market civilization. The indifferent "good citizen" is plainly having himself a ball—at any cost. In his shortsightedness, he refuses to realize that he must wake up to what is substantial in life or the payoff will be his own deterioration and ultimate destruction.

The blessings of prosperity still seem to be with us, but the entire world is undergoing profound changes under our very eyes. How will these changes affect our "prosperity?" The seriousness of the situation in which we now find ourselves has recently been highlighted by the Cuban affair. Here we again have a dilemma which could not be readily resolved by ballistic strategists or thermo-nuclear scientists. Such situations rather, are demanding of a more fundamental and substantial approach. Before we



A group of Advertising Design and Illustration majors of the School of A and Design.

by Hans J. Barschel, Professor, Art and Design, College of Fine and Applied Arts, R.I.T.

will be able to appreciably influence others and effect significant control over change, we are obliged to reevaluate ourselves. Have we prepared to accept the responsibility for world leadership? One must possess the qualifications for leadership in order to rightfully assume the responsibilities of leadership. Constant preoccupation with a high standard of living seems to have made us indifferent to our responsibilities.

I believe, however, that we are beginning to recognize that the substance and meaning of life is not comfort but accomplishment—and unselfish accomplishment at that. I venture to say that, only to the extent that we can again bring substance into our lives in America during the coming few years, will we be able to prove that we are not "degenerate and soft."

We may contribute to this vital readjustment by seriously readopting the ideals and disciplines with which we courageously built our American heritage. Individuals must again accept and shoulder responsibilities and not expect to shirk and turn their problems over to committees and pressure groups for easy solution. Accomplishment and pride in service must come before profits. Integrity must become the basic ingredient in all our dealings in every walk of life. When we think of personal comfort, we should think of easing our conscience. Drugs, gadgets and gags are not substitutes. Most of all, we should think of individual peace of mind and faith as being the essential prerequisites for any security program.

I believe that not much time remains and that reevaluation and readjustment must begin immediately.

Youth and those responsible for their education will carry the greatest burden for effecting this modern renaissance. Education for this enlightenment must be in depth and very daring and courageous.

It must begin in the home. The schools and colleges cannot be the place where the parent's job will be done. To merely send the children out to "play" is not enough. Neither is being a "pal" to your child the answer. The parent must again become the child's beloved and respected model, who will act with justice and authority while he nurtures his child's individuality and sense of responsibility. In a society facing a crisis, children must accept their own responsibilities gladly. The child cannot constantly be shielded from the challenges of life, he must be prepared to face and endure them from the beginning.

In school, young people should continually be exposed to educational experiences which will help them to become broadminded citizens of the world. They must learn to recognize problems and to know where the personal and the global interact. With a basic understanding of the world and its problems, they must be prepared to be able to relate this background to their own environment and encouraged to eventually translate all into action as they seek and find solutions. Teachers must earn their respect for giving them the vision, the knowledge and sense of responsibility for this tremendous task.

The mature citizen, by leading a purposeful and substantial life, will be exemplary to the youth of each generation and thus help them to regain strength and faith in the future and to acquire an inner conviction of their mission.



EDUCATION *the ultimate* WEAPON

Dr. Gordon S. Brown, Dean of the School of Engineering of the Massachusetts Institute of Technology, has authorized *Matrix* to publish the substance of a talk which he presented at the Rochester Chamber of Commerce on November 3, 1960 under the sponsorship of the Engineering Societies of Rochester.

Because of the rapidity of change there are today a number of circumstances peculiar to an educational environment that need very careful examination, perhaps I should say reappraisal, in terms of tomorrow's world. Let me quote a comment by Margaret Mead, the anthropologist, "No one will live all of his life in the world into which he was born, and no one will die in the world in which he worked in his maturity."

It is important that we all realize that none of the developments existing in the world in which we now work appeared in today's sophisticated form merely by the action of some bright inventor building models in his backyard garage. The atomic age and space age have burst into being because of a long background of fundamental science, mathematical theory and controlled basic experimentation. When drawn together these background factors have rendered it possible for creative engineers under a host of spurs to reap results in the form of practical application.

Basic to our discussion is the fact that the role of the engineer is to conceive, to design and to construct. He is the one who must make things work. One great need today is for engineers who can make something new, something radically different. These are the creative types of people. But also, there is need for the engineer who is more the inventive arranger, and finally, but by no means lastly, there is great need today for the engineer who keeps things running. In tomorrow's era of technology these will be needed in very great numbers.

Now, as far as the esteem with which our bright youngsters in high school hold engineering, there may be a possibility here that some of them are seeing the future more clearly than engineering teachers. At a time when the enrollments in higher education are increasing, there is abundant evidence of a drift away from engineering classrooms to physics and mathematics departments. Perhaps this comes from their estimate of the need for a more fundamental approach to engineering problems. With this emphasis on the more fundamental curricula, few will disagree. But what would you say when a student tells you that he decided to study just mathematics or physics because he believes them to be less narrow than an engineering curriculum? Would you disagree or take a look at the engineering curriculum? I would do both, and hence I say we have here a real challenge, first to point clearly to the exciting career opportunities in the purposeful world of engineering and, second, to weave a strong scientific base into an education program that is not narrow, one that will make engineering dynamic and self-generating, that will exhibit the purposefulness of the engineer in putting science to useful, practical ends in the real world.

It seems clear that all of us must give a sharper distinction between the meanings of the words scientist and engineer. This conflict of understanding between engineering and science has been stressed by Sir Eric Ashby, who is President and Vice Chancellor of Queens University of Belfast. Sir Eric uses the word technology when I would use the word engineering. He says:

"Technology is inseparable from men and communities. In this respect technology differs from pure science. It is the essence of the scientific method that the human element must be eliminated. Science does not dispense with values but it does eliminate the variability of human response to values. It concerns itself only with phenomena upon which all qualified observers agree. It describes, measures, and classifies in such a way that variation due to human judgment is eliminated. Unlike science, technology concerns the applications of science to the needs of man and society. Therefore technology is inseparable from humanism. The technologist is up to his neck in human problems whether he likes it or not. Take a simple example: the civil engineer who builds a road into a new territory in tropical Africa. He may assert that it is not his business to take into account the effect his road will have on primitive villages up-country; but his road is, in fact, a major experiment in social anthropology. He does not need to be a professional anthropologist, but he cannot afford to be utterly ignorant of the implications of his work. He is a technologist, not a pure scientist: the social consequences of his work are therefore an integral part of his profession . . ."

Doing engineering is applying science of practicing the quantitative organization of natural phenomena. But in its creative aspects it comprises the ability to relate seemingly unrelated events of nature in quantitative ways in devising useful configurations of matter, elements, devices, or systems. It must also quantitatively classify the recorded observations of science in ways that will provide a prediction of quality and quantity of the outcome of designs not yet concluded, in order that the extent of our achievements shall be encouraged to grow from seeds of suggestions and that the possibility of new applications shall be enhanced and the validity of theories extended to include a continually widening scope. In summary, one can say that "doing engineering is practicing the art of the organized forcing of technological change."

Because of the clarity with which I think we see the distinction between scientist and engineer and because there seems to be a wide acceptance today of the waste in educating engineers under the old doctrine of education, namely the skills and tricks a young man learned in college would last a lifetime, we should be seeking a basic theme—something resembling a core—or a nucleus of engineering.

As we move in this direction, we see everywhere that the substance and plan of engineering curricula are being recreated in several ways. One way this task of curricula innovation is being tackled is to think only in terms of the schools of science, and advise young men to take a strong program in physics, chemistry, mathematics, thermodynamics, mechanics, electro-magnetic field theory, fluid mechanics, solid-state physics. For many students this is a fine first step and for the youth of this land who are not motivated to ask the professor, "What is it all good for?" it is a fine way of getting an excellent education. Also, it is one way of making a strong core of basic knowledge quickly available to many of our students.

But here we come to what I believe to be a dilemma. This is why I say that at present wide-scale activity to increase the science content of engineering curricula can, if not skillfully accomplished, result merely in the teaching of science and not the teaching of the *engineering of science* to engineers. The greatest weakness from the viewpoint of many engineering students is that they fail to see the point in the basic sciences. For example, a subject such as thermodynamics is taught at M.I.T. in the Department of Physics, in the Department of Chemistry, in the Department of Mechanical Engineering, in the Department of Chemical Engineering and now in the Department of Electrical Engineering under the designation molecular engineering. Frequently, the most basic forms of these subjects are taught in the schools of science but for most of our engineering students and for many of our engineering professors the package appears to lack purpose.

Therefore, it seems to me we need to think in terms of some new goals in engineering education. We want to know what frontier fields we are to couple these bodies of basic knowledge with as we help evolve them, document them and give them purpose. It is this frontier coupling, or interaction in engineering, which is the responsibility of an engineering professor to teach to students who intend to become engineers and not scientists. The trouble is that to do these things I and my colleagues must acquire a great deal of new knowledge, we must move right up to the frontiers and we must be allowed to play the role of prophets. For many of us this will be a new task.

Here I wish to emphasize the word *purpose* again. My ambition is to put purpose into the life of the youth as they go through our university halls, to give them a picture of the great vistas of the future, to try and deepen and increase their thirst for knowledge so that they will have some picture of the horizons of the world in which they live. Our job, and the dilemma, is how to bring this objective into the classroom.

One way is by engineering design, but design is an art and rarely taught from the pulpit. It is best learned through an internship under the guidance of a master. Inevitably this brings up research, laboratory work and the need for experimental facilities. A great many schools get plagued by the sacredness of capital equipment. The scrapping of plant is more difficult to achieve in a university than in a business. University trustees don't have tax laws working to their advantage. We are all short of modern capital facilities. We need to think carefully, however, about what it is we need in the way of new capital equipment.

Take energy, for example. As we build competence in the basic fields that permit students to think in terms of meeting man's demand for energy in the foreseeable twenty years, we will teach thermodynamics, statistical mechanics, quantum mechanics, field theory and its application to gaseous discharge phenomena and solid-state physics. We need to be able to give students some insight into practical engineering examples of these problems. For example, let us consider thermoelectric energy conversion. The plasma thermocouple, which was announced about a year ago, had its birth in the state of New Mexico. But you will find very few engineering schools in these United States today that have the facilities, the curricula, the home problems, the examples or the faculty competence that are equal to bringing these engineering frontiers within the reaches of tomorrow's engineering student.

A year or so ago a visitor from England came to my office. He was very sad, and said, "Mr. Brown, what's happened to the teaching of power engineering in the United States? Everything is electronics." I tried to put him at his ease by saying that everything should be electronics because it is electronic phenomena that underwrites electric power, and what he had seen, of course, was the withering away of the old courses that many of us studied in electrical machinery and in 60-cycle power transmission. But he was yet to see

many engineering manifestations of teams of professors and students working in thermoelectric conversion, thermopiles, plasma dynamics or the like.

Now this brings me, of course, to the meat of the coconut. I have the feeling that we must take more penetrating looks at our universities. We should give wider expression to the doctrine that, in addition to being places where students are taught the common or accepted knowledge of the day, they be environments wherein we find the culture media for raising before students the goals, the ideas and a vision of the horizons of tomorrow.

We should accord our universities a greater respect than we do. Instead of stressing that they be merely institutions of teaching, they should be institutions primarily of learning. They should not be thought of as community service stations responding to this or that popular demand. They must in their own right be working at the cutting edge of the future. This means that on every campus there must be a high degree of vitality in research and in thinking into the future of engineering.

Lots of people say, "You just teach the known fundamentals and send your college professors into industry to learn what is new and important." If universities are thus trailing industry, I doubt they are worth saving. To relegate the role of the professor to be a follower of industry would be the quickest way to ruin the universities of this great land. I believe what we must do is make the universities so strong that industry wants to come onto the campus and live with us and respect us for what we have to offer.



Dr. Gordon S. Brown

Universities need more of this child that has something in the way of engineering, this thing called research. Up to a point it is wonderful to think that the United States, in its industry, is building up vast strength in research. But we must remember that industry rarely does its research in the company of youth, rarely does its research in the company of graduate students, rarely does its research in the environment where the inquiring mind is encouraged to think freely and expansively.

I say the nation that puts most of its investment in research into laboratories that do not have intimate intellectual companionship with the youth of tomorrow is missing one of the great opportunities of this age. The record shows that few industrial or government research laboratories live long as creative centers. They shine brilliantly for perhaps a decade and then appear to atrophy. Those that are subject to rapid change, however, that have a built in self-generative mechanism, flourish. Often this mechanism is the growth of the field or the throughput of people. The modern university in its engineering fields can provide just this ingredient. Wherever engineering research or development on campus is going on in an environment largely staffed by teachers and graduate students who must find theses, the organizations stay dynamic and viable. More of this should be done for the good of the nation because not only does the next generation of engineers or scientists achieve a superior education by a period of on-campus internship in a challenging viable engineering or science laboratory, but the nation itself is exploiting one means—perhaps the unique one—for keeping its laboratories dynamic and with a sense of direction.

Margaret Mead said something else that I will now quote. Having started with an anthropologist, let's close with one. "Education was once mainly vertical transmission of tried and true information from an older to a younger generation of men, but now also must include lateral transmission among contemporaries of information about what has just been discovered, invented, created, manufactured or marketed." (And I will add, what is about to be discovered.) Industry-sponsored or government-sponsored research in the universities can facilitate the lateral exchanges needed both by the schools and by society. With the imaginative help of broad gauge legislatures, foundations, and industrial leaders, we may yet get around the present dilemma in engineering education and teach the engineering of science to our future engineers.

MATRIX invites your participation. The editors will welcome articles, art, photographs, suggestions, criticisms, your letters, telegrams, phone calls, etc. MK.

Cost Control Sessions Currently in Progress

Once again, RIT is linked with local industry through the Extended Services Division of the Evening College. Terminating Feb. 22 and currently in progress, Cost Control Workshops are being offered to local business-heads.

The program has been divided into a series of five practical, intensive seminar workshops to encourage foremen, supervisors, and manufacturers to think of cost reduction as an integral part of their daily jobs. Sessions will be four hours in length each Wednesday evening until Feb. 22. Emphasis will be on how to find areas of greatest cost reduction potential, how to assign definite accountability to get action and the tools needed to do so.

The program chairman is Mr. H. Edwin Dudley of Stromberg Carlson. Each workshop will be headed by a different speaker and workshop-leader.



SPEAKER—Mr. Saadat Hasan speaks on Arab-Israeli Conflict during recent assembly.

Local Fraternity Petitions National

Sigma Beta Rho, the business fraternity founded at RIT in June 1960, has submitted its petition for membership in the national business fraternity Delta Sigma Pi. It is now waiting for a reply from the national office.

If the fraternity is accepted, preparations will begin immediately for the initiation banquet and rituals.

The fraternity is working with George C. Hedden, Director of Admissions to establish an RIT guide service for prospective students, parents, and guests. Sigma Beta Rho will maintain a schedule of guides on an annual basis.

This is one of the projects the fraternity is making available for the purpose of increasing student support of Institute functions.

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Rules to Follow at Interviews

Spring is just around the corner, and the time for applying for a new job is now. Whether it be a part-time job or a life long occupation, preparation for the employment interview can make it run much smoother. Knowing what to say, what to do and what pitfalls are may give you a better chance at getting that important job.

The interview is for a period of twenty to thirty minutes in which the applicant is given a chance to sell himself. The following preliminary rules will make this sales pitch easier and more effective.

1. Be natural and dress with conservative ease.
2. Supply yourself with a pen,

paper and your social security number.

3. Study up on company background. Your guidance counselor or department head will often have numerous booklets to assist you in this research.
4. By all means know the name of your interviewer.
5. Be prepared to answer a number of questions with quick, intelligent answers. Surprise questions such as "Tell me a story", "Tell me about yourself", or "What do you expect to be doing in 10 years?" are favorites.
6. During the interview, keep in mind that you are there because the interviewer needs someone and is interested in what you can do for his company.
7. Always apply for a specific job. The applicant that says he will take any job usually comes up with none at all.
8. Be careful to look your interviewer in the eye and follow his lead in conversation.
9. At the close of your interview, leave quickly, but be sure to thank your interviewer.
10. Should you be offered the job immediately, give an answer only if you are sure of your answer. Otherwise specify a later time at which you will give your answer.
11. If a job offer does not originate at the interview, do not give up. Your interviewer may have to report his impressions to superiors before making an offer.
12. If you are not offered a job, never plead or beg for a position. Try to improve your approach in order that you will make a better impression next time.

Close Race Among Bowlers

The 10-team RIT Bowling League entered its 16th week last Tuesday with a close race involving the top six teams. Only six games separated the sixth place squad from the second place team.

The standings:

	W	L
Sattellites	53	22
Bombers	45½	29½
Seducers	43½	31½
Pica Poles	41½	33½
Skippy's	40½	34½
Amerks	39	36
Balls of Fire	30½	44½
Cavaliers	21	54
Rebels	18½	56½

Don Corson paces the league with a 182 average followed by Joe Mazzara, 176.9, and Bill Frost, 174.7. Corson also holds high individual 3-game set with 602. Ray Vasil has the high individual game of 235. The Seducers have the high 3-game set of 2079 while the Pica Poles are high with a team game of 770.



LOOK OUT BELOW—Happy Newman Club members take off for the bottom of the hill as they enjoy some fine tobogganing during their recent outing to Powder Mill Park. (Hendel Photo)

National Journal Mentions SAC

"The frequency with which the School for American Craftsmen at RIT appears in the national journal *Craft Horizons*, which covers the crafts, is really remarkable," so states SAC Director, Harold J. Brennan. The School for American Craftsmen is influential, although it is one of the smaller departments at RIT, comprised of about 60 students.

Mr. Brennan, himself, wrote an article for the January-February 1961 issue, which covered the Second Regional Exhibition of San Antonio, Texas. He was the sole juror for this showing of the works of 140 craftsmen from seven southwestern states.

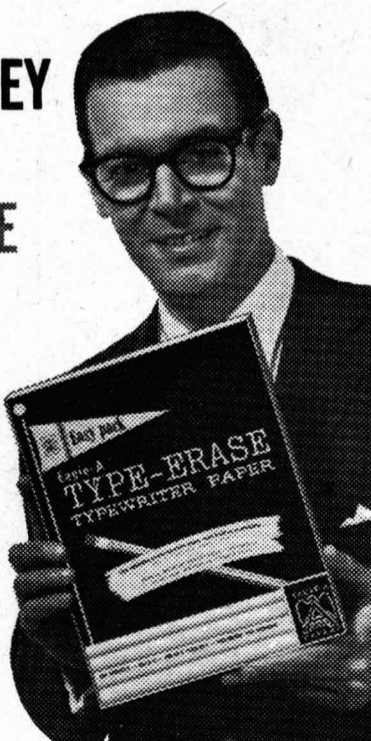
An article in the current issue is devoted to silversmith Olaf Skoogfors, who had design train-

ing in hollowware at SAC. He feels he learned much from silversmith Hans Christensen and the associates of Shop One, including Ronald Pearson and Jack Prip.

Another article concerns the annual craft exhibition of the Staten Island Institute of Arts and Sciences held in November and December. Eight outstanding New York craftsmen were selected to feature their work. Among those chosen was an instructor at the School for American Craftsmen, Frans Wildenhain. He is noted for his stoneware and exhibited bowls, vases, and jars. Weavings done by Muriel Barnes, (SAC '54), were shown. Jere Osgood, (SAC '60), displayed some of his work including a desk, table, and chairs.

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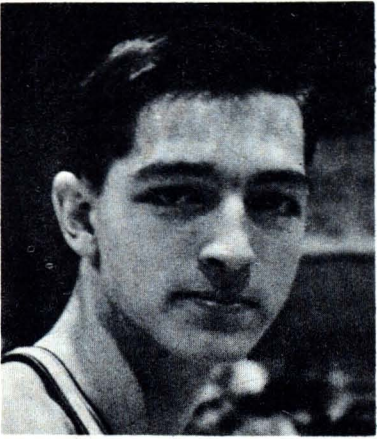
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Tiger Tales



Bill Lamoureux

For not having played any high school basketball, Bill Lamoureux has come a long way. The 6 ft. 4 in. 170 lb. forward played on a school team for the first time last year, with the RIT Frosh.

Playing in a league outside of school, Bill, who hails from Schenectady, New York, was a member of a team that did pretty good in the standings. While enjoying the game a lot, Bill also found out that he had some proficiency at the sport. He tried out for the Frosh team to see what it would be like, and compiled a 15.5 point per game average and a high scoring game of 28 points. This year, he has averaged 14.5 so far and has had two big games, those being the first two of the season; 25 points against McMasters and 24 against Assumption.

Commenting on the question of school spirit, the second year printer had this to say: "The crowds that we have been getting help an awful lot. Its a great feeling to go out there and have all those people pulling for you." Bill complements the Fraternities and Sororities for their abundance of school spirit shown at the home games in lieu of the disappointing showing of the team. "This can be shown by our record of away and home games; playing at Utica and Buffalo, we lost quite badly to teams which we shouldn't have, but against teams like Alfred and Hartwick, two very tough teams, we battled them to the wire at home!"

JV Grapplers Win

Paced by two falls, Coach Gary Dotzler's JV squad downed the visiting Lycoming JV squad 18-16 in the preliminary action last Saturday night.

Doug Drake put the Tigers out in front with a fall in his opening 123 pound match. The next scoring came from the 137 pound match when Joe Lanzisera won by forfeit to bring the squad back out in front 10-5.

Captain Barry Liebl won his 167 pound match 8-2 to capture his fifth win in six matches. At 177 pounds Jerry Hejtmanek pinned his opponent to put the match out of reach of the visiting Lycoming JV squad.

Cagers Gain Win—Down Potsdam 71-69

The court Tigers finally broke a ten game losing streak with a 71-69 victory over Potsdam State. This brings the Tiger record to 4 wins and 14 losses with 5 games remaining.

Playing without captain Kay Kramer, who has a foot injury, and with limited service from Charles Albertson who has a sprained ankle, RIT staved off Potsdam rallies to bring the half-time score to 36-30 and to win the game 71-69.

The cagemen were sparked by Ron Avery's 23 point showing, and by good team play in general. The Tigers made good 21 out of 32 free throws and sank 25 of 60 field-goal tries for a 42 per cent average.

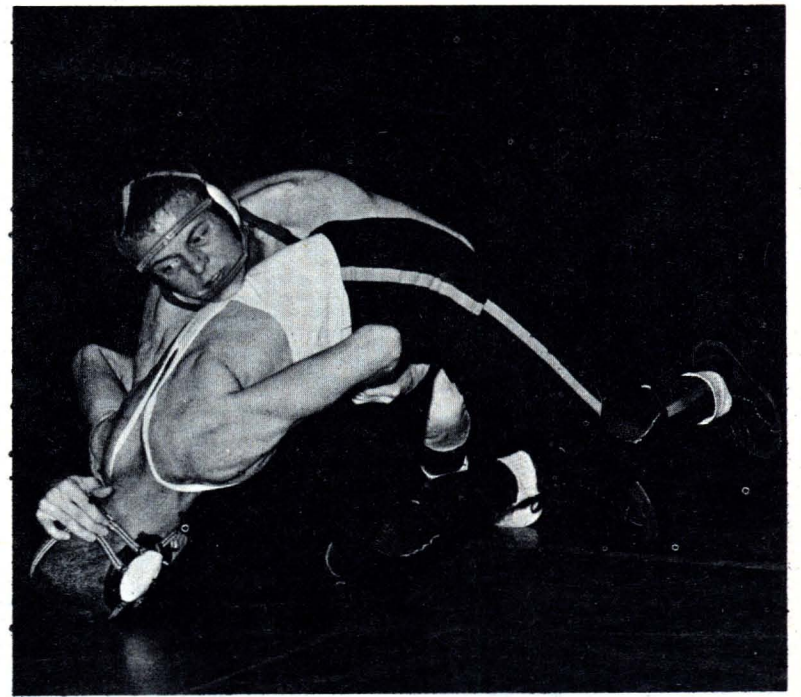
RIT Hockey Club Whips Ithaca 8-4

RIT's Hockey Club crushed Ithaca's club 8-4 last Friday at Ithaca. This evens up RIT's record at 2 and 2.

Ithaca started off the scoring at 3:10 of the 1st period. However, it didn't take RIT long to get into the scoring column as Jim McLean stole the puck at mid-ice and let lose with a slap shot from the blue line at 4:30. Ithaca came back again near the end of the period, but Dave Cull tied it up for RIT again before the buzzer sounded.

In the 2nd period, Bill McLean put the team in the lead with a goal in the second minute of play, but then it was Ithaca's turn to tie it up. With the game at a 3-3 deadlock, Tim Butler finally scored the goal that put RIT in the lead for good. Other scores were by Bill McLean, Bill Whitneck and Jim McLean.

Lycoming Routs Grapplers As Upsets Highlight Meet



TIGER ON ATTACK—Dave Egan riding his Lycoming opponent during last Saturday's match. (Fisher Photo)

The fortunes of the wrestling team took a low dip last Saturday as a visiting Lycoming College team dominated the entire meet in winning 17-9.

The meet started with an upset victory for the Tigers when 123 pounder Charlie Missakian put the Tigers into a brief lead with a 3-2 decision over his Lycoming opponent who was previously undefeated this season.

From that point on nothing went right for the grapplers as they managed to win only two of the remaining seven matches, and even those were close contests that were not decided until the final buzzer.

Dave Egan scored an early take down on Lycoming's captain, Bill Kehrig, but eventually dropped a close 3-2 decision in the 130 pound match.

The upset of the evening came in the 137 pound match when Ramon West got caught in a pinning hold at 1:04. It was the first loss in two years for West and the first home varsity loss of his career. This brought the number of undefeated members on the squad down to one, Captain Dick Zoyhowski.

Jim Kennedy stayed with his opponent, Bob Pac, right up to the last minute but a late near fall proved to be the deciding

action as Pac, this year's Wilkes champ, defeated Kennedy 4-0.

When Captain Dick Zoyhowski won his match 2-0 it appeared that there was a chance for the Tigers to pull the meet out as the score was then 11-6. In winning his match, Zoyhowski ran his undefeated string to 24 matches and remained the only undefeated member of this year's team.

All hopes of a comeback were eliminated when Lycoming won the 167 and 177 pound contests. At 167 pounds the Tiger's Bob Cully lost a one-sided decision to his Lycoming opponent. In the following 177 pound match Dave Zoyhowski was edged out 3-2 in the final minutes of the match.

In the heavyweight windup Ken Klaus won his match 2-1 to give the Tiger's their third victory of the night but it was too little and too late.

The loss brought the record of Coach Earl Fuller's crew to 2-4-1 for the season. With three meets remaining, the grapplers will have to win them all to finish the season with a winning percentage. This Saturday Ithaca College will furnish the opposition at the Ritter-Clark gym. The freshmen go into action at 7:00 p. m. and the varsity begins at 8:30.

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