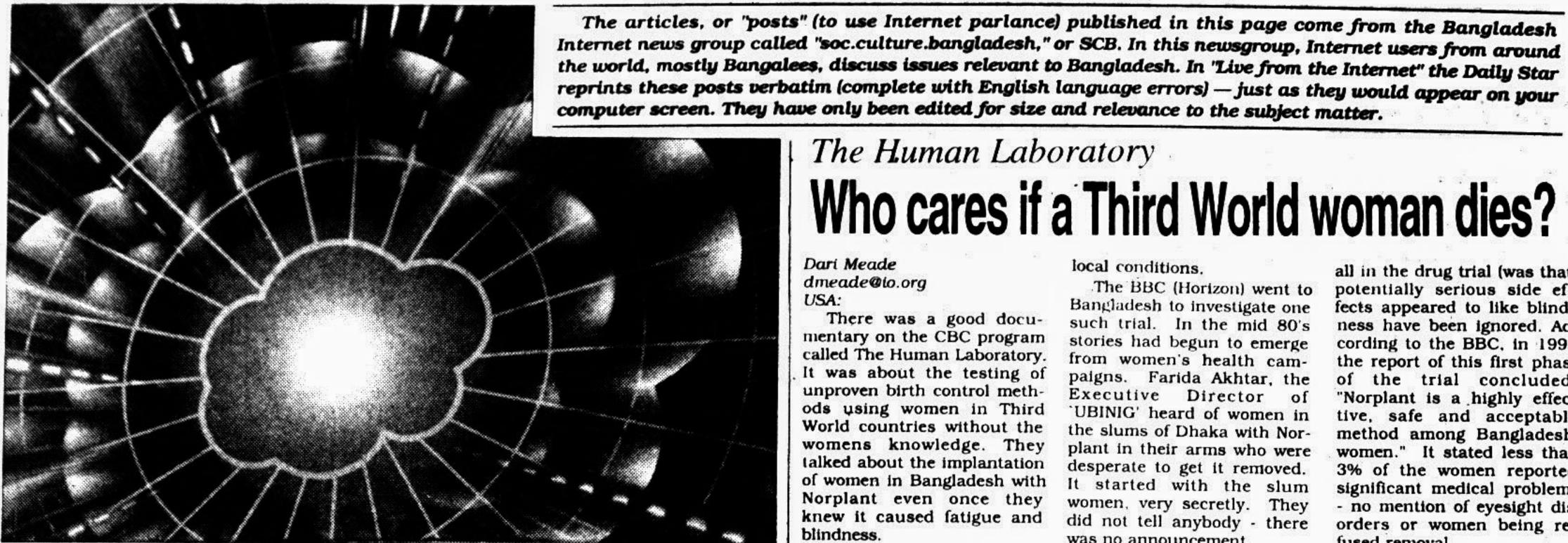
# - LIVE FROM INTERNET -



History of the Internet

## At last the internet

by Edwin Diamond and Stephen Bates

HE ARPAnet construction contract was awarded to Bolt Beranek & Newman (BBN), a research firm based in Cambridge, Massachusetts, which had close ties to MIT. BBN shipped the new communications software in August 1969 to UCLA and then to SRI in October. At a November demonstration the two California machines exchanged data. The first long-distance packet-switched network was in operation. By the end of the year, all four nodes were

At this point, the striking figure of Vinton Cerf, the computer scientist The New York Times called the father of the Internet, begins to take a leading role in the narrative. Born in 1943 in New Haven. Connecticut. Cerf turned his back on Yale University to do his undergraduate work in mathematics at Stanford University and to get his master's and doctorate in computer science from UCLA. In 1969, Cerf was a graduate student working at UCLA's Network Measurement Centre, observing how the new four-node ARPAnet was functioning - and what it would take to make it malfunction. "There were many times when we would crash the network trying to stress it." Cerf recalled.

Soon he was collaborating with Robert Kahn, an MIT math professor on leave to work at BBN. Cerf and Kahn developed a set of software "protocols" to enable different types of computers to exchange packets, despite varying packet sizes and computer clock speeds. The result, TCP/IP was released in 1973 (by which time Cerf was teaching at Stanford). TCP -Transmission Control Protocol - converts messages into packet streams and reassembles them. IP -Internet Protocol — transports the packets across different nodes, even different types of networks. Just as TCP/IP stands for a whole "suite of protocols," not just those two, so were there several fathers of the Internet; Cerf credits many people, "thousands by now," for helping create the computer-network communications system we have come to know.

In 1977, having left Stanford for ARPA , (then called DARPA, the D for "Defense" added in 1972). Cerf worked on a different sort of interconnectivity. From a van cruising along a San Francisco Bay Area freeway, a computer sent messages that travelled, by pasket radio, satellite, and landlines, a total of 94,000 miles (150,400 km). "We didn't lose a bit!" Cerf later recalled. The project demonstrated that computers could communicate to and from the battlefield. No longer was ARPA funding pure computer science research; now DARPA insisted on what Cerf termed "militarily interesting" projects like this one. Even so, Cerf's C3 innovation arrived as the Cold War was flagging - reminiscent of how ENIAC had been delivered at the end of World War II.

Cerf has suffered severely impaired hearing since birth and has worn a hearing aid since he was 14. It is serendipitous but fitting, then, that his TCP/IP made possible the textbased Net communications systems so popular today, including electronic mail (email), discussion lists, file indexing and hy-

non-entities.

Denis Wright

Australia:

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ing may be of interest.

There has been some dis-

-- Oxfam America, the in-

cussion on the net concern-

ing Bangladeshi women,

marriage age etc. The follow-

ternational development and

disaster relieforganization.

has released a video entitled

Community. Community is a

24-minute documentary

filmed in the Satkhira dis-

trict of rural southwestern

Bangladesh. It portrays the

dramatic social and economic

transformation of a commu-

nity through local develop-

ment initiatives, which in-

cludes micro-credit and gen-

attitudes against women and

the successful economic de-

velopment projects in Com-

munity are documented in

part through the story of

Habibur and Bahanur, hus-

The change of traditional

der training.

pertext. E-mail, of course, is the most widely used of the Net services, the most convenient and the most functional.

Ray Tomlinson of BBN is credited with inventing the software and sending the first email messages across ARPAnet in 1972 and 1973. At first, scientists used e-mail to collaborate on research projects; their computer talk was decorous, befitting a serious O.R. project that had had its origins in Soviet-American military rivalries. There were also rules to obey. ARPA limited use of the network to official business. In addition, some users worried that sending personal messages by e-mail might somehow violate the postal laws. "You'll be in jail in no time." RAND's Paul Baran warned his colleagues.

Soon, however, a graduate-student hacker attitude took over. Mailing-list software permitted large groups of people to discuss common interests, making e-mail a mass medium as well as a point-to-point one. The first list. SF-LOVERS, linked science fiction fans. "ARPA was fairly liberal... but they did occasionally put their foot down," Bernie Cosell, an early ARPAnet user, later recalled. When ARPA brass complained. SF-LOVERs was shuft down - only to rise again a few months later, after users had managed to convince ARPA that the mailing list was serving the vital purpose of testing the network's mail capacity. Soon the network was carrying NETWORK-HACKERS. WINETASTERS, and scores of other mailing lists. ARPAnet had come a long way from C3 and survivability. The science fiction writer Bruce Sterling captured the image best: It was "as if some grim fallout shelter had burst open and a fullscale Mardi Gras parade had come out."

By the mid-1980s, TCP/IP was linking ARPAnet to other networks, including the NSFnet of the National Science Foundation. another federal agency, and Usenet, a network created by graduate students at the University of North Carolina (Raleigh) and Duke University, also in North Carolina (Durham). The result was first called ARPA-Internet and then simply the Internet APRAnet split in two, with military communications going onto Milnet and the computer researchers finally over taking ARPAnet in name as well as in practice. ARPAnet shut down in 1990, and NSFnet went off-line last April; the most heavily travelled routes of the information superhighway now are in private hands. Nearly all the various networks used the TCP/IP language. "I take great pride in the fact that the Internet has been able to migrate itself on top of every communications capability invented in the past twenty years." Cerf told Computerworld in 1994. "I think that's not a bad achievement."

More elegantly he wrote hacker poetry. When ARPAnet was decommissioned in June 1990, scarcely anyone noticed; other elements of the Internet seamlessly took over all its functions. Cerf wrote a "Requiem for the ARPAnet." It ends: "Now pause with me a moment, shed some/tears./For auld lang syne, for love, for years and years/of faithful service, duty done, I weep./ Lay down thy packet, now, O friend, and sleep."

-- Denis Wright, Australia

ating work.

munity. Over time, many of

the oppressive traditional at-

titudes against women began

to fade, replaced by the reali-

ties and successes of the

community's income-gener-

of a two-part video series.

following Shelter. Shelter

depicts how loss of life and

livelihood from cyclones in

Bangladesh has dramatically

decreased after a project to

build cyclone shelters, plant

trees and conduct disaster

training was initiated. This

project has been spearheaded

by the Bangladesh Rural Ad-

vancement Committee

(BRAC). BRAC's work has

been extremely successful;

because of the disaster pre-

paredness program, less than

200 people died in a devas-

tating cyclone in 1994.

whereas a similar cyclone

killed three million people in

Community is the second

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Oxfam initiative

Before their community underwent its historic

change, Bahanur and the other village women had

no economic or social rights. Beatings by their hus-

bands were commonplace.....Women did not own

any possessions. Essentially, women were viewed as

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historic change, Bahanur and

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Beatings by their husbands

were commonplace. Women

did not eat until all members

of the family had had their

meal. Women could not go

out publicly unless accompa-

nied by a male. Women did

not own any possessions.

Essentially, women were

governmental development

organization funded by Oxfam

America, began working with

the women of the Satkhira

district by providing them

credit for starting small-scale

businesses and offering train-

ing in women's issues. Ut-

taran expanded the opportu-

nities it offered to also in-

clude men, emphasizing that

social and economic growth

depends on the participation

of all members of the com-

Uttaran, a Bangladesh non-

viewed as non-entities.

#### The Human Laboratory

## Who cares if a Third World woman dies?

Dari Meade dmeade@io.org

USA: There was a good documentary on the CBC program called The Human Laboratory. It was about the testing of unproven birth control methods using women in Third World countries without the womens knowledge. They talked about the implantation of women in Bangladesh with Norplant even once they knew it caused fatigue and blindness.

White supremacist antiimmigration groups like the American group FAIR (Federation of Americans for Immigration Reform) were funding these dangerous woman and they were afraid birth control methods in Third World countries as a war on people-of-color. They were doing it with help of CIA and international family planning organizations.

It looks like the white supremacists want to rob what is often the only source of power for women-of-color in the Third World: reproductive choice.

Shabbir A. Bashar S.Bashar@kcl.ac.uk

The following report has been adapted from a recent

local conditions.

The BBC (Horizon) went to Bangladesh to investigate one such trial. In the mid 80's stories had begun to emerge from women's health campaigns. Farida Akhtar, the Executive Director of 'UBINIG' heard of women in the slums of Dhaka with Norplant in their arms who were desperate to get it removed. It started with the slum women, very secretly. They did not tell anybody - there was no announcement.

"We found that family planning workers came to . the research, Ms Haque said. (the women) and (warned) them that they must not talk about this to any outsider to talk to us. It took (us) sometime to get their trust to be open - they were so afraid that you could see it in their face(s) - they were really afraid !" said Ms Akhtar.

Another trial had been dropped earlier because of public outcry over the way Norplant was being promoted as a safe drug when it was still under test. While Farida Akhtar was investigating this trial, her offices were raided by (the then) military government officials.

Ms Aklitar and her team

It looks like the white supremacists want to rob what is often the only source of power for women-of-color in the Third World: reproductive choice.

-- Dari Meade, USA

BBC television documentary program in the UK "Horizon" - for posting on SCB. The episode was titled "The Human Laboratory". The factual content of the documentary has been kept intact, but the sentences have been rephrased and edited so as not to impinge on the BBC or anyone else's copyrights. The sole purpose of posting this on SCB is to bring this matter to a wider circulation particularly those with interest in the plight of Bangladesh and her people.

#### The report

Recently Norplant was released in the west - it seemed to be every woman's dream - hassle free sex, no daily pill and extremely reliable protection. This method of contraception involves six implants surgically inserted under the skin of the arm which stay there for five years and release a hormone inhibiting ovulation. It is claimed to be the most widely studied contraceptive to arrive on the market by the developers. But some women have had

problems. Patsy Smith had Norplant inserted after she had her second child. "Few months after having Norplant inserted, I started getting horrible headaches. I started to notice things were blurry ...", complained Ms Smith. Her eyesight deteriorated over the next year and she was taken to hospital when the symptoms became unbearable. She is now awaiting "pseudo tumor cerebrae" - a condition where increased fluid pressure crushes the optic nerve and causes permanent damage. She is already permanently blind in one eye and partially blind in the other.

40 out of 100 of who used Norplant had similar symptoms and out of these, 8 had the same condition as Ms Smith. Eye sight disorders. strokes, persistent bleeding and problems with removal (of the implant) are only some of the complaints. Many women have no such side effects but thousands are now taking legal action in the

For 20 years, Norplant was studied in the west but mostly in developing countries. After its standard clinical trials had been completed, pre-introductory clinical trials were held to assess the Norplant's safety. ethicacy and acceptability in

eas - and-talked to more than a hundred women (who had Norplant). She found that the side effects were having a dramatic effect on their lives. One of the women recalls. "Suddenly I became ill. couldn't get-up, couldn't take care of my children, couldn't cook. I was bed ridden. It was unbearable" while another says, "My limbs felt like collapsing - as if they were being wrenched apart. couldn't work or eat even. had to lie in bed for three months. I couldn't do anything. I was bleeding all the time and could not even have two meals a day". Many of them fainted quite often, which was the case before. So these women were asking while (their) lives were supposed to be very happy after taking Norplant, why their

A woman cannot remove Norplant by herself once it is inserted. A third interviewee recounts her story, "I went to the clinic as often as twice a week. But they said, This thing we put in you costs 5000 Takas (about 125 US dollars). We'll not remove it unless you pay this money.

went to the villages, slum ar-The Horizon reporter then

lives were like hell now?"

all in the drug trial (was that) potentially serious side effects appeared to like blindness have been ignored. According to the BBC, in 1993 the report of this first phase of the trial concluded. "Norplant is a highly effective, safe and acceptable method among Bangladeshi women." It stated less than 3% of the women reported significant medical problems - no mention of eyesight disorders or women being re-

fused removal.

Reflecting on the quality of "I think the Norplant trials were bad signs - because they were not really recording the side effects. They were scolding women when they wanted to report side effects. Their requests for removal were disregarded. So how can they tell us that it was an acceptable method for women, and that it has been scientifically tested out? How can I even accept that this has been the work of scientists ?"

"If you look at the trial, it looks as though these women are no better than a guineapig, and a guinea-pig perhaps is more expensive in the west. That's why our women are cheaper here, so they are easily available. They can be easily controlled and they can be easily tested" said Ms Akhtar.

These trials were developed with funds from the US Agency for International Development (USAid). Dr. Nils Daulaire, the Chief Health Policy Adviser of USAid said, "We have very strict rules at AID in terms of any experimentation that's done. There are certain standards in terms of human subjects that have to be met - and informed consent is a critical part of that. I've not been made aware of a serious lapses in terms of any of the AID trials. If there are cases where women were not accorded the opportunity to have Norplant removed, that would be a very serious breach. If this was done with USAid funds, we would take that extremely seriously."

confronted him: "Well, it has been done with USAid funds it appears and we have interviewed many women who had problems getting it removed. How can this be with a clinical trial that you are running with American tax payers money ?" Dr. Daulaire replied, "Well I can't answer that specific clinical trial because it's one that I'm not personally familiar with. can't tell you that how it can be. I can tell you if it is. there will be severe consequences. The organisations that would be responsible for monitoring and overseeing these would have to clarify

Eye sight disorders, strokes, persistent bleeding and problems with removal (of the implant) are only some of the complaints. Many women have no such side effects but thousands are now taking legal action in the west.

Ofcourse I feel very angry. went to several other doctors and offered them money to take those things out, but they all refused.

There have been many (cases) where these women have sold their cow or their goat which was the only asset they had for treatment otherwise her family can't survive. Their economic condition was torn - their family happiness was totally gone.

By now the news of the Norplant testing had become widespread. Nasrin Haque of Naripokkho said "Participation in a clinical trial requires that the person who is participating understands it is a trial, that the drugs they are testing out is still in experimental stages. This was categorically miss-

ing." Perhaps more worrying of

how any such activities took place under their oversight." Family Health Interna-

tional oversaw some of these trials on behalf of USAid They confirmed their officials were in Bangladesh regularly but told the BBC (Horizon). "We do not believe this was very poor science'. We believe the study was well designed and implemented in a ethical way . . . " They admitted there were problems with removal, but say they acted upon them and these were not as wide spread as claimed. Yet their own data reveals that out of 1300 women from the expanded trial over 100 reported being

...... And Horizon found evidence of problems with other USAid studies of Norplant. Testing was also carried out

in Cite Soleil in Haiti.

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HK@cub.uca.edu

refused removal.

We the deshi students in University of Central Arkansas (ÚCA) have 18 Bros! I am trying to promote my University on the National level!! Any of you guys out there want to know some info about Arkansas or UCA. please do e-mail!! hk0191@cub.uca.edu

## The Daily Star reader's Asking .....

Iffat Parveen, Reader, The Daily Star. Would you accept a one

party parliament election which is apparently in the

R.Begum rb9@ukc.ac.uk

offing?

You have nothing to do if other parties refuse to take

Wasi wasi@mit.edu

This question doesn't have a simple answer. If elections are fair, then I will accept it. Elections are supposed to give the people a chance to choose and if the opposition doesn't join a fair election. then it is their loss. But the bigger question is whether the elections can be fair.

More replies comming:

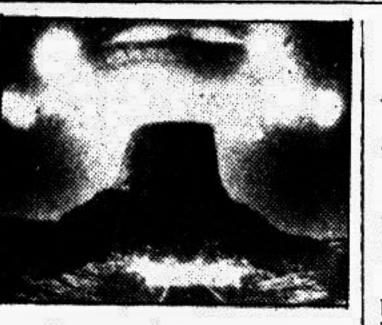
Khokan Chandra Paul khokan@fmsun3.ec.t.kanazaw a-u.ac.jp

Kanazawa University, JAPAN. (Re: War criminals of 1971) All types of war criminals should be brought on trial according to existing law. But for the war criminals of 1971 my view is different. They

the then government. It is not benevolent attempt to stage an outcry for their trial after such colossal gap, especially for a country where major part of population is starving.

were freed unconditionally by

(Re: Student politics) Student politics for a third world country is necessary but not essential and this politics must be confined for the rights of students without involving to any political party.



## What we can learn from Nigers coup

Rinku Anisuzzaman anisuzzaman. 1 @osu.edu

The recent coup in the west african country of NIGER should be a wake up call for Bangladesh. -- The military overthrew the first democratically elected president after the army chief of staff became tired of a parlamentary crisis in which the president was engaged in a bitter political fight with his opposition. The Niger army chief of staff decided a coup was required to put Niger back on track towards solving its problems. Note the similarities between Bangladeshes current political climate, and the political climate in Niger just before the army coup This coup took place just the other day. Bangladesh should get its political house in order quick, or we too might join Niger in having the arm step in to restore "order" and by the way, the USA and France have suspended all aid to this poor west African country. I wonder if they would do the same in the case of a army coup in

## Bangladesh UN soldiers-WHY??!!!

Petri Hanhineva donnagel@paju.oulu.fi Finland:

Bangladesh...

my knowledge Bangladesh is one of the poorest countries in the world. Allthough ,this country sends soldiers all around the world.I. bet these operations are very expensive. How car they afford this??

Mr. T tt@com, USA: Because UN pays them.

Rafat Mahmud Sadiq sadiq@gn.ecn.purdue.edu

It's good politics -sending soldiers to Saudi resulted in their cancelling some of our debt. Secondly, in UN peacekeeping operations, the UN picks up the tab (or at least

most of it).

## The Search For Peace And More

Mariam Ispahani mariam@skypoint.com

There comes a time in a person's life when you just want to leave everything behind and venture out into the world seeking peace, seeking happiness, and seeking change. You are fed up of the ritual of waking up in the morning, dashing to catch the bus or train to work, tired of the increasing pile of papers on your desk, staring at the clock wishing it would be 4:30 pm soon, coming home exhausted in the evening, checking your mail only to find nothing but bills, eating the usual quick-fix microwave dinner, watching a little TV to relax, and collapsing on your bed! I might have missed out certain details about the average day, but I am sure we have a lot in common.

So, what are we going to do to get away from the monotonous, stressful, predictable day? For starters, I knew I can't find peace in material things, so I thought I should search for peace across the continents and over the seas. Maybe it is waiting for me on that deserted island where the sun is warm, the water is blue and... dream on! Then I read a Sufi saying. "If human beings knew their own inner secrets, they would never seek elsewhere for peace. happiness, and inner light."

Aha! Find yourself they say, but how? I can't answer that for you, because we each follow different paths. For me, a combination of finding myself within myself and finding, myself through something not material works fine, and that is what I plan to do.

Zulfikar Shahnawaz zulfi@zulfi.demon.co.uk

By the mere fact that we humans can think and therefore progress, to question the purpose of life is fundemantal to our happiness and tranquility. Such questions are not just philosophical conundrums that bears little or no consequence in peoples lives.

Escapism is the opium of

the masses, because rest of the time people are slaves to the system. A kind of anxiety for the search for meaning and purpose often ensues, but this is only natural, for we are human beings and not automatons. Quite often in this state we are given an oportunity to almost, as it were, step out of our confused lives and question 'the meaning of life', an opportunity to question our convictions and those ever so fundamental questions. It is a real test of character and integrety to change ones life after the envitable conclusions from such deep contemplation, for the Truth is simple, manifest and arrogant, but the trial is to live by it once discovered.



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author's own as they appear to all receivers of the Internet. know what Bangladeshis abroad are feeling and saying.